SENSAPHONE®

REMOTE MONITORING SOLUTIONS

2011-2012 Product Catalog & Application Guide

NEW for 2011

CELL682 Wireless Alarms

The ultimate choice for remote monitoring and control where telephone lines are non–existent or too expensive.

Coming Soon

WSG30 WIRELESS SENSOR GATEWAY

Web based monitoring with up to 30 Wireless Sensors

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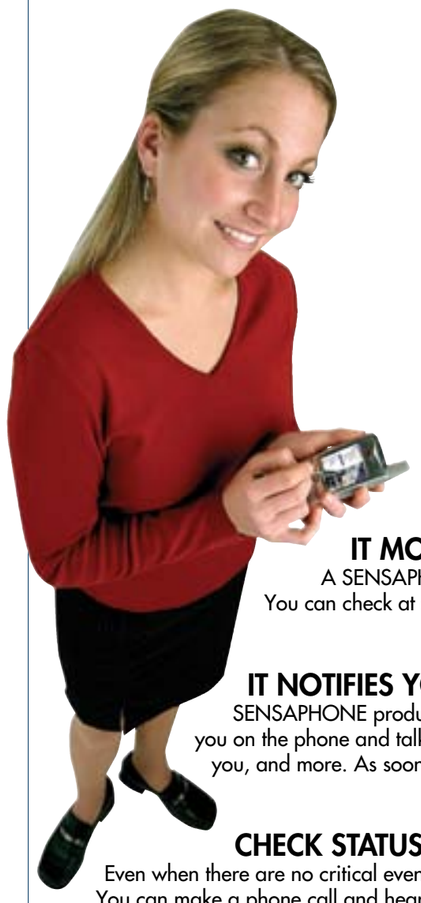
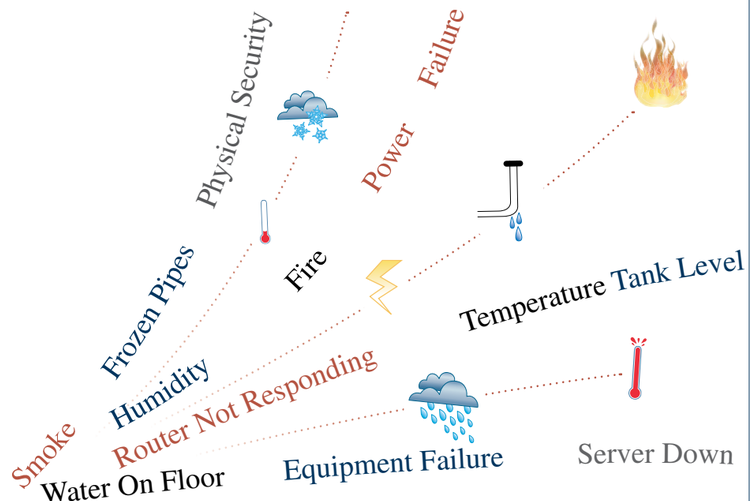
MADE IN THE USA

What Is A Sensaphone?





IT MONITORS

A SENSAPHONE monitors a remote location and contacts you when problems are detected. You can check at any time to make sure everything is okay.

IT NOTIFIES YOU

SENSAPHONE products can notify you in a variety of ways when a problem is detected. They can call you on the phone and talk to you about an event that is occurring. They can even fax you, page you, e-mail you, and more. As soon as a situation arises, the Sensaphone will find you and tell you about it.

CHECK STATUS AT ANY TIME

Even when there are no critical events, you can always check the status of your remote site to give you peace of mind. You can make a phone call and hear the Sensaphone tell you that everything is okay, or you can even check the live status on a website on select Sensaphone products.

If you have something important at a remote site, then you need a SENSAPHONE *to watch it for you.*

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Why Choose Sensaphone?

Sensaphone products are designed to help you to watch over a remote facility. Our range of Sensaphone solutions can instantly inform you when conditions are less than perfect, plus you can check on the status at anytime. Sensaphone is the leader in Remote Monitoring with over 25 years in business and over 300,000 installed systems worldwide.

Our vast experience has helped us to design products that are reliable, easy to use, flexible, and affordable. Listed below are just some of the reasons that Sensaphone is the best choice for your remote monitoring application.

No Monthly Fees:

Typical security systems charge you a monthly fee, which can add up to several hundred dollars per year. Most Sensaphone products do not have a monthly fee. You buy the product and program it to directly notify anyone you want without the cost of a central service.

Real Sensor Values:

There are other monitoring products on the market that save money by using simple "on/off" sensor status. Not Sensaphone. We design our products with universal inputs that can read actual temperature values, tank levels, or other sensor information. You will always know the actual value of the monitored condition and not just that it is okay or not okay.

Battery Backup:

All Sensaphone products either include battery backup, or offer it as an inexpensive option. Unlike other systems, when the power goes out, your Sensaphone product will continue to operate and deliver alarms and status.

Maximum Flexibility:

Solutions are available from Sensaphone to notify you using custom voice phone calls, e-mails, text messages, faxes, SNMP traps, and more. Our products can communicate using phone lines, Ethernet, cellular, or satellite.

Remote Access:

Whether it's one of our phone line products, satellite products, or web-based products, there is always the ability for you to make programming changes remotely. With Sensaphone, you always have access to your critical information.

No Dependencies:

Most Sensaphone products are standalone solutions. The Sensaphone communicates directly to you and does not rely on the operation of a computer, server, or the response of a central service.

Field Proven in Sensitive Applications:

Sensaphone products have been successfully deployed to monitor the most sensitive applications including: emergency vaccines, medicines, tissue samples, blood banks, Homeland Security emergency response materials, military weapons systems, and countless others.

Innovation:

We have our own in house engineering team that is always busy. The Sensaphone tech team is constantly working on current and future technologies to make our products even more powerful and easier to use. Sensaphone currently owns three US Patents for our unique technologies.

Easy To Use:

One of the most obvious differences between Sensaphone products and any similar system, is the ease of use. We make it a priority to make the programming and setup of our products to be as simple and clear as possible. Our programming interfaces are designed to be intuitive and not use any complicated codes or commands that you will see in other systems. Some of our products, like the IMS Series, will even automatically detect what type of sensor you have connected and configure it for you. And if you need any assistance with your Sensaphone product, our owner's manuals are very extensive with many examples and pictures. And if you still need more help, we offer unlimited, toll free, telephone technical support. Just call us and we will walk you through it.

Made In The USA:

Sensaphone is based here in Pennsylvania where we design and build our products. All aspects of the engineering design, manufacturing, servicing, testing, and support, are performed here in the United States.

Contact Us:

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Sensaphone Product Guide Applications

Sensaphone wants to make the purchasing of your unit as accurate and painless as possible. Over the course of decades of environmental monitoring experience, we put together this guide to give you an understanding on what are the key monitoring factors for your application. Inside you will find information on which unit will best fit your applications specific needs. If you're not sure where to start take a look at our suggested basic monitoring packages. Several different popular advanced options are also recommended for each application.

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Data Center Applications

From small computer rooms to large data centers located around the globe, Sensaphone has an alarm monitor to fit your application. Sensaphone network based monitors are designed to detect, alarm and notify you of any unfavorable condition immediately, regardless of where you are.

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Water Treatment Applications

Sensaphone systems are a perfect fit for the remote monitoring of water plants, labs, and other facilities. Operators in the water, wastewater, and environmental remediation industries use Sensaphone equipment to monitor water and wastewater treatment and management, pumping stations, operating equipment, labs, and office facilities.

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Sensaphone products monitor residences for environmental conditions such as temperature, humidity and the presence of water as well as monitor for power outages and high sound alarms. All conditions that could be potential threats to an unattended home. They can even allow remote thermostat control.

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Faulty compressors, power outages or doors left ajar can cause a major catastrophe in your Cold Storage environment. Prevent substantial financial loss by receiving early warning alarm notifications with a recommended Sensaphone product.

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Livestock Applications

Sensaphone systems monitor temperature, power failure and surges, ventilation/fans, smoke & Fire alarms, and alert to condition deviations before damages to animals or inventory occur. The Sensaphone line helps ensure that environments are always under control with optimum conditions.

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Greenhouse Applications

Sensaphone solutions monitor power failures, temperature extremes, humidity levels, intrusions, sounds (such as smoke and burglar alarms) and other selected conditions–helping greenhouse owners protect against theft and property or product damage.

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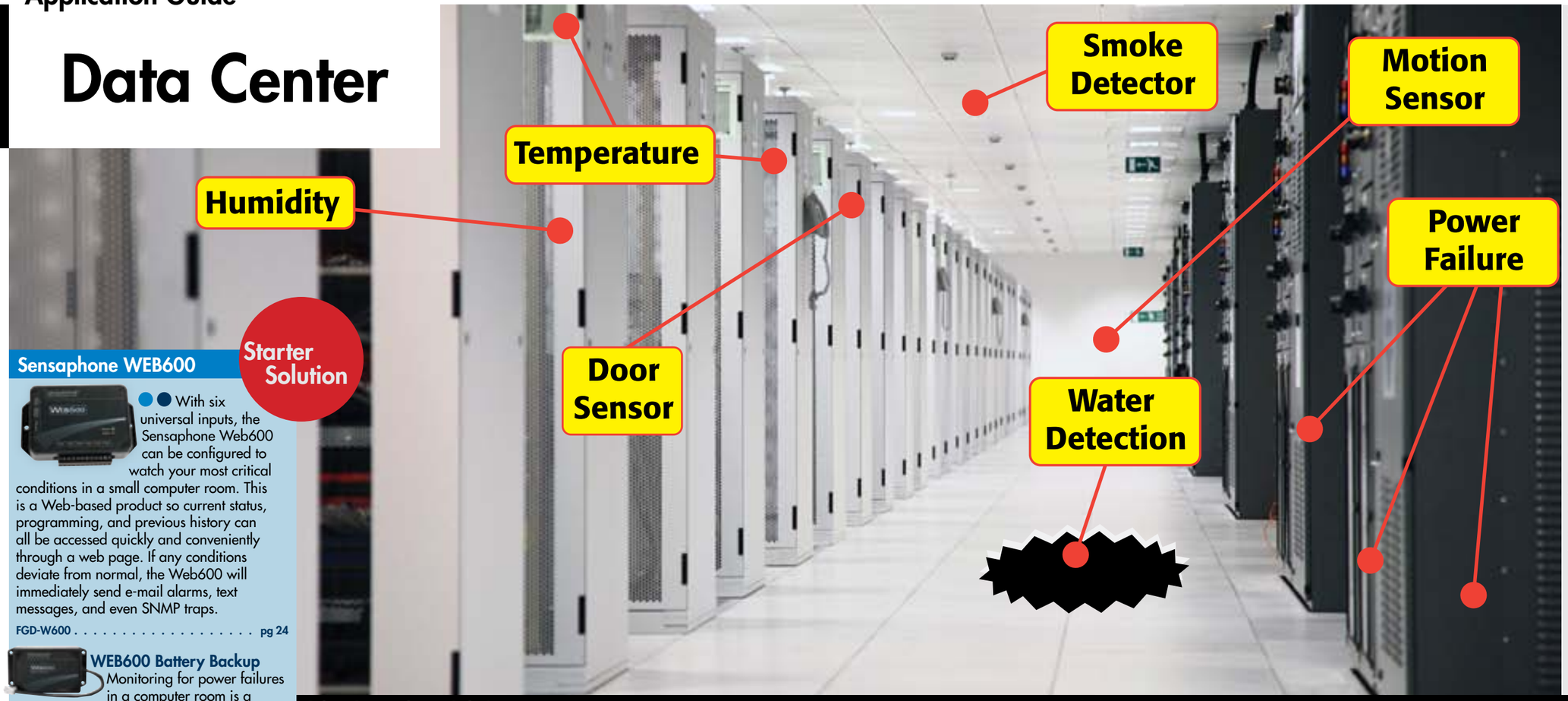
Product Comparison Guide

	WSG-30	CELL682	WEB600	400	800	1400	1800	SAT4D	2800	Express II	2000	SCADA 3000	IMS-1000	IMS-4000
Inputs	Coming Soon Up to30	NEW 14	6	4	8	4	8	4	4/4 (1)	8-40	8	16-144	8	8-256
Outputs	0	2	0	1	1	1	1	0	1	1-17	1	8-32	1	Opt
Input Type														
Dry Contact	(3)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	(3)	(3)
Thermistor	(3)	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	(3)	(3)
Temp Sensing Range	-109° to 115°F	-100° to 124°F	-109° to 168°F	-20° to 150°F	-20° to 150°F	-109° to 168°F	-109° to 168°F		-109° to 168°F	-85° to 300°F	-125° to 200°F	-100° to 300°F	-122° to 140°F	-122° to 140°F
4-20mA	(3)	✓	✓			✓	✓		✓	✓	✓	✓	(3)	(3)
Wireless Sensors	✓								✓					Opt
IMS Sensors													✓	✓
I/O Expansion	✓									✓		✓		✓
Sound Level Monitoring				✓	✓	✓	✓		✓	✓				✓
Remote Programming	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ladder Program/PID												✓		
Pump Control		✓										✓		
Alarm Notifications	32	24	32	4	8	8	8	14	8	48	32	64	64	512
Alarm Delivery														
Voice Phone Call		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	Opt	✓
Numeric Pager				✓	✓	✓	✓		✓	✓	✓	✓	Opt	✓
Alpha Pager		✓					✓				✓	✓	Opt	✓
Email	✓	✓	✓					✓					✓	✓
SMS Text Message	✓	✓	✓					✓					✓	✓
Fax											✓	✓	Opt	✓
Internal Web Server	✓		✓										✓	✓
Web Status	✓	✓	✓					✓			(2)	(2)	✓	✓
Datalogging	✓		✓					✓			✓	✓	✓	✓
Communication	Ethernet	Cellular	Ethernet	Phone Line	Phone Line	Phone Line	Phone Line	Satellite	Phone Line	Phone Line	Phone Line	Phone Line	Ethernet w/ Optional Phone Line	Ethernet Plus Phone Line
Enclosure	Plastic	NEMA 4X	Plastic	Plastic	Plastic	NEMA 4X	NEMA 4X	NEMA 4X	NEMA 4X	NEMA 4X	Metal	Metal	Metal	Metal
Mounting	Table or wall	Wall	Table or wall	Table or wall	Table or wall	Wall	Wall	Panel or Pole	Wall	Wall	Wall	Wall	Rackmount or Tabletop	Rackmount or Tabletop
Battery Backup	✓	✓	Opt	Requires 6 C Cells	Requires 6 C Cells	✓	✓	✓	✓	✓	✓	Opt	✓	✓
Monthly Fee	No	Yes	No	No	No	No	No	Yes	No	No	No	No	No	No

(1) 4 Hard Wired / 4 Wireless Sensors
(2) Requires dedicated PC connected to device
(3) Requires correct sensor

Application Guide

Data Center



What's Important In Your COMPUTER ROOM or DATA CENTER?

- Air Conditioner
- Server Rack Temperature
- Humidity
- Water Under the Floor
- Network Connectivity
- Power Failures
- UPS Readiness
- Physical Security
- Smoke and Fire

"We're offline again!" No one wants to hear those words. Computer downtime is no longer acceptable in our fast paced world, so keeping your systems up and running should be a high priority. Sensaphone has a solution to watch over any size computer facility from small computer closets to large data centers. Be notified immediately whenever something starts to threaten the operation of your computer systems.

Starter Solution

Sensaphone WEB600

With six universal inputs, the Sensaphone Web600 can be configured to watch your most critical conditions in a small computer room. This is a Web-based product so current status, programming, and previous history can all be accessed quickly and conveniently through a web page. If any conditions deviate from normal, the Web600 will immediately send e-mail alarms, text messages, and even SNMP traps.

FGD-W600 . . . . . pg 24

WEB600 Battery Backup

Monitoring for power failures in a computer room is a must, so the battery backup module for the Web600 is highly recommended.

FGD-W610-B. . . . . pg 25

2.8K Temperature Probe

Provides real time temperature sensing with programmable alarm limits.

FGD-0101 . . . . . pg 44

Zone Water Detector

This sensor allows you to detect water on the floor. The alarm will trip if water touches anywhere along the 10 foot rope. The rope can even be extended to cover large areas or to isolate an area to detect water leaks.

FGD-0056 . . . . . pg 50

Humidity Transmitter

Proper humidity levels are a key factor in the life of your servers. This sensor provides a real time humidity measurement so that both high and low levels can be custom programmed.

FGD-0052 . . . . . pg 48

Other Sensaphone Solutions

IMS-1000

The IMS-1000 is similar to the Web600 in that it is a web-based monitoring solution, but it provides much more. Instead of monitoring up to six sensors, it can monitor up to eight. The IMS-1000 also has the option of a phone line connection in addition to the Ethernet computer network connection. Even if your computer network is not working, the IMS-1000 can still use a standard phone line to notify of a problem. In addition to monitoring for physical problems, the IMS-1000 adds the ability to monitor server availability and alarm on a lack of response from any network device.

IMS-1001. . . . . pg 63
IMS-1002. . . . . pg 63

IMS-4000

For a wide area enterprise solution, we recommend the IMS-4000. It is similar to the IMS-1000 with both the Ethernet connection and a phone line connection, but is designed for monitoring multiple locations. The IMS-4000 system is made up of one Host and up to 31 Nodes that can be spread out over a large area. Each Host or Node can monitor up to eight sensors, and the group of Hosts and Nodes can be managed from one common interface. The Nodes can be in a different room as the Host, or a different building, or even a different country. The IMS-4000 provides a very modular and expandable remote monitoring solution.

IMS-4001. . . . . pg 64
IMS-4002. . . . . pg 65
IMS-4003. . . . . pg 65

Recommended IMS Accessories

Room Temp Sensor

Mounts on any flat surface to measure temperature in the room. User configurable to °C or °F.

IMS-4810 . . . . . pg 68

Room Temp Sensor with Display

Indoor wall mount temperature sensor with the addition of a local temperature display. Available to read to either °C or °F.

IMS-4811 . . . . . pg 68
IMS-4813 . . . . . pg 68

Mini Temp Sensor

Used to measure the temperature inside a small space or inside cabinets.

IMS-4812 . . . . . pg 69

Ultra Low Temp Sensor

Used to measure the temperature in extremely low temperature environments.

IMS-4814 . . . . . pg 69

Room Humidity Sensor

Mounts on a wall to measure relative humidity in a room.

IMS-4820 . . . . . pg 71
IMS-4821 . . . . . pg 71

Water Detection Sensor

Detects the presence of water on the floor. Includes ten feet of water sensing rope.

IMS-4830 . . . . . pg 72

Power Failure Sensor

Adds additional power failure monitoring to the IMS main unit.

IMS-4840 . . . . . pg 72

Current Sensor

Connects in series with servers or other network equipment to monitor how much current is being used. Available to monitor 15 or 20 amps.

IMS-4841 . . . . . pg 73
IMS-4842 . . . . . pg 73

Dry Contact Bridge

Allows any dry contact to be interfaced with any of the IMS systems.

IMS-4850 . . . . . pg74

4-20mA Bridge

Allows any 4-20mA analog transducer to be interfaced with any of the IMS units.

IMS-4851 . . . . . pg74

Magnetic Reed Switch

Used to monitor a door to a room for unauthorized entry.

IMS-4860 . . . . . pg75

Motion Sensor

Used to monitor unauthorized access into data centers.

IMS-4861 . . . . . pg75

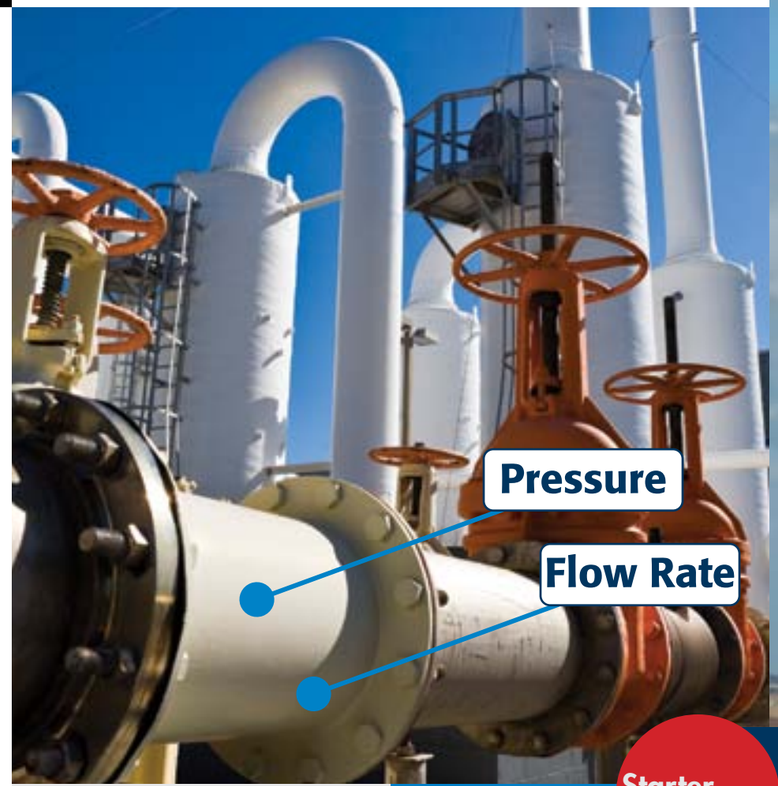
Smoke Detector

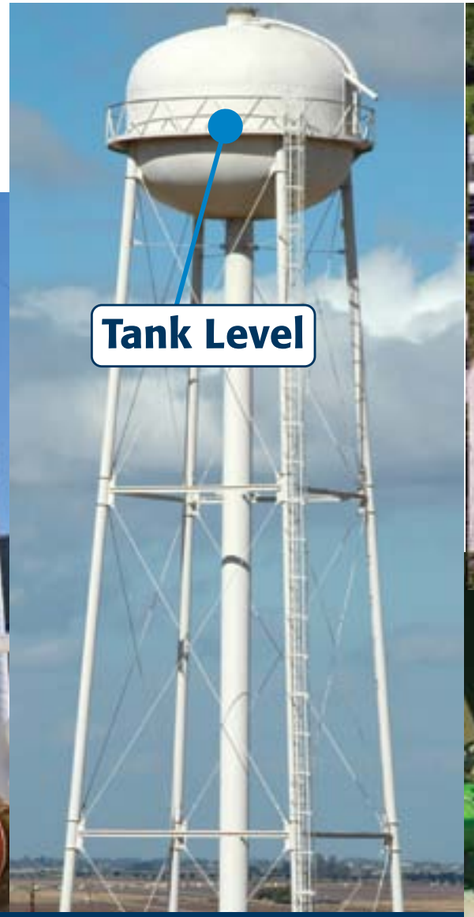
Detects smoke independently from the primary fire alarm system.

IMS-4862 . . . . . pg 76

Application Guide

Water Treatment





What's Important In Your MUNICIPAL WATER facility?

- Tank Levels
- Flow Rates
- Pump Status
- Turbidity
- Power Failure
- Security
- Equipment Failure

Sensaphone provides a wide variety of solutions available for remote Water and Wastewater facilities. Products are available to perform anything from simple monitoring and alarm notification, up to data logging, control and sophisticated SCADA functionality. Whatever level of remote monitoring and control you need, Sensaphone has a solution to keep you informed and in control 24/7.

Sensaphone 1400

Starter Solution

Most basic alarm dialer needs can be met with the Sensaphone Model 1400. It has four universal inputs that can monitor from any dry contact status device, or any 4-20mA analog transducer. When using analog devices, the Model 1400 can even scale the input range so you will be measuring each condition in real engineering units. The sealed Nema-4X enclosure is well suited for outdoor environments. Alarm notification is performed with phone calls using custom voice messages.

FGD-1400 . . . . . pg 28

Other Sensaphone Solutions

Express II

If more than four sensor inputs are required, the Sensaphone Express II provides eight inputs to start, and the ability to expand in groups of eight up to 40. In addition to the input expansion, the Express II has a local LCD for easy access to status and programming. Up to 48 people can be notified for alarms using custom voice phone calls.

FGD-6700 . . . . . pg 34

Sensaphone 3000

The SCADA 3000 is a great choice for multiple remote sites being viewed through one central computer. It provides data logging and modular expansion on both inputs and outputs. High level decision making can be performed on the SCADA 3000 through Ladder Logic, or even structured C programming. It is capable of simple pump control, or almost any complex calculations and control decisions.

FGD-3000 . . . . . pg 38

CELL682

When your remote water treatment site does not already have a phone line, the CELL682 can provide wireless access to the site for both alarm monitoring and pump control. The wireless service is less expensive than a phone line, plus the CELL682 provides the convenience of webpage access for all status and programming. It has monitoring for six 4-20mA analog transducers, eight contact sensors, and two relay outputs. The two relays can be used for remote manual control, or even automatic duplex pump control.

FGD-CELL682-CD . . . . . pg 20

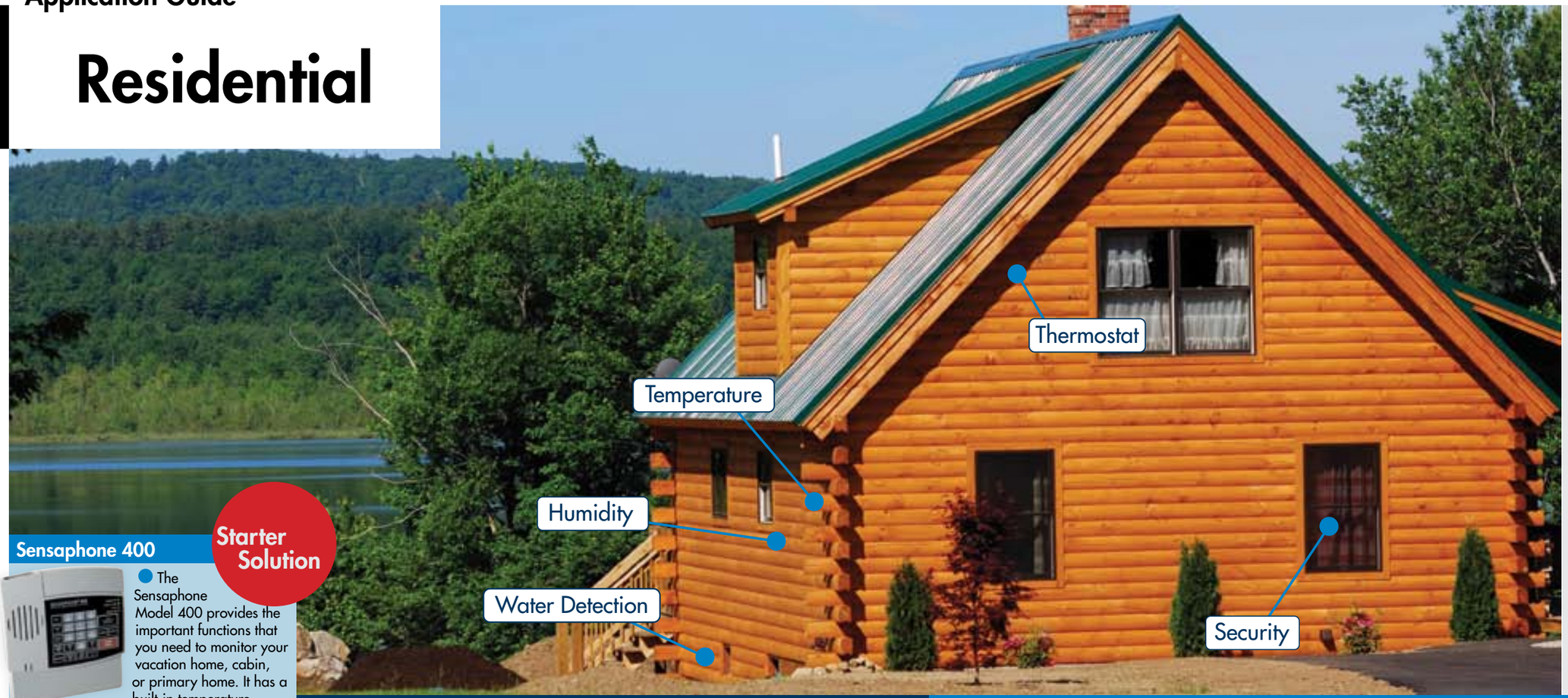
SAT4D

If you need to monitor equipment in a location that is very remote, or where there are limited or no communication options, then the SAT4D is perfect. It communicates via satellite and can be used anywhere in the US with 100% coverage. Up to four conditions can be monitored and alarm notification is delivered by voice phone calls or e-mails. The SAT4D runs without power and can operate for over five years on its internal battery.

FGD-SAT4D . . . . . pg 42

Application Guide

Residential



What's Important In Your HOME?

- **Freezing Pipes**
- **Water In The Basement**
- **Smoke and Fire**
- **Power Failure**
- **Security**

If you are away from your home for long periods of time, or if you have more than one home, then a Sensaphone can give you the peace of mind to know that everything is okay. In addition to monitoring and alarming for critical problems, the Sensaphone Model 400 can allow you to change your thermostat remotely. The best part is that there are no monthly fees. Once you purchase a Sensaphone you never have to pay any service fees to use it.

Sensaphone 400

Starter Solution

The Sensaphone Model 400 provides the important functions that you need to monitor your vacation home, cabin, or primary home. It has a built-in temperature sensor that you can program for any temperature level you need to warn for potential frozen pipes. The 400 will also detect power failures and even includes a microphone to listen for the sound of a smoke detector. If any problems are detected, it will make four phone calls to you, your family, friends, or neighbors to announce the problem in your own customized voice.

FGD-0400 . . . . . pg 26

2.8K Temperature Probe

This external weatherproof sensor will add the capability to monitor the outdoor temperature or another temperature location within your house.

FGD-0101 . . . . . pg 44

Spot Water Detection Sensor

Place this sensor in your basement to detect water on the floor from any type of pipe leak or sump pump overflow.

FGD-0013 . . . . . pg 50

Other Sensaphone Solutions

Sensaphone 800

Upgrading to the Model 800 will provide for eight monitored conditions instead of the four of the Model 400. The 800 can also make phone calls to eight people instead of four.

FGD-0800 . . . . . pg 26

Sensaphone WEB600

The Sensaphone Web600 provides homeowners a flexible web-based remote monitoring option at an affordable price. It helps to keep track of critical conditions such as temperature, humidity, the presence of water on a floor and other conditions. Users can be notified immediately when current values exceed the normal range via an e-mail or text message.

FGD-W600 . . . . . pg 24

Sensaphone WEB600 Battery Backup

The Sensaphone Web600 battery backup provides uninterrupted backup power when main power fails. The module includes a rechargeable battery and charge control circuitry to keep the battery fully charged while connected to a powered WEB600.

FGD-W610-B . . . . . pg 25

Recommended Accessories

Humidistat

Detect high or low humidity inside the residence.

FGD-0027 . . . . . pg 48

Humidity Transmitter

A low profile humidity transducer that transmits actual humidity levels to the Sensaphone. *(Not compatible with the 400/800)*

FGD-0052 . . . . . pg 48

Dual Setback Thermostat

Replaces an existing thermostat to provide separate temperature set points for Home and Away. When used with the 400 or 800, you can remotely change the temperature of your home between the Home and Away settings before your arrival.

FGD-0064 . . . . . pg 52

Power Out Alert

Monitor power outages by plugging the unit into any 110VAC outlet.

FGD-0054 . . . . . pg 49

Zone Water Detection Sensor

Used to detect the presence of water on a floor or inside a false ceiling. It comes with 10' of WaterRope that is capable of covering a larger area then FGD-0013.

FGD-0056 . . . . . pg 50

Magnetic Reed Switch

Used to detect any unauthorized entry or intrusion. Typically installed on door or windows, several switches may be wired in series.

FGD-0006 . . . . . pg 52

Infra–Red Motion Detector

Detects movement in a specific area to monitor for unauthorized entry or intrusion. Covers approximately forty feet of area.

FGD-0007 . . . . . pg 51

Smoke Detector

Monitors for the presence of smoke inside the residence.

FGD-0049 . . . . . pg 51

Bluetooth Cell Phone Interface

The XLink allows your Sensaphone to dial and receive calls using any cell phone with Bluetooth technology. If land-line telephone service was unavailable at the Sensaphone's location, the XLink can provide telephone service to your Sensaphone simply by locating a cell phone next to the device. The XLink will send all incoming calls to the Sensaphone and when the Sensaphone needs to dial out the call will be seamlessly completed through the cell phone. The XLink is simply a wireless (Bluetooth) link between your Sensaphone and a cellular phone.

FGD-0230 . . . . . pg57

Application Guide

Cold Storage

Cold Food Storage

Cold Medical Storage

Vaccine Storage

What's Important In Your COLD STORAGE facility?

- Temperature Range
- Data Logging & Trending
- Power Failure
- Condensation & Leaks

Whether you are storing frozen foods, medical tissue samples, or critical vaccines, Sensaphone has a solution to help you verify that everything is stored at the correct temperature. Products are available to monitor standard freezer temperatures and even –80°C ultra low freezer temperatures. Early warning detection can also be performed by watching other critical conditions, like power failure, equipment failure, leaks, and more. Upgraded Sensaphone solutions can also perform detailed temperature data logging and trending in addition to instant alarm notification.

WEB600 — Starter Solution

This Cold Storage Starter Solution uses the Sensaphone Web600 to monitor and notify. The WEB600 provides a web-based interface that includes time stamped data logging. Up to 100,000 data samples can be stored internally that can be viewed live or downloaded into a spreadsheet. And whenever temperatures are not within the specified range, the WEB600 will immediately transmit up to 32 alarm notifications as e-mail messages or text messages.

FGD-W600 . . . . . pg24

WEB600 Battery Backup
Provides uninterrupted power to the WEB600 for approximately two hours in the event of a power loss. The WEB600 can be configured to monitor the battery backup and send an alarm when the battery becomes low.

FGD-W610–B pg25

2.8K Temperature Sensor with Glass Bead Vial
The glass bead filled vial provides a buffer from any momentary fluctuations that may cause a preliminary alarm dial out such as defrost cycles, opening of doors and fans circulating air.

FGD-0107 . . . . . pg45

Other Sensaphone Solutions

Sensaphone 400
The Sensaphone Model 400 is a good alternative to the Web600 when you have a phone line available, but not a computer network connection. The 400 can monitor up to four temperatures or other sensors, and notify up to four people. The alarm notifications are in the form of voice phone calls with customized voice messages.

FGD-0400 . . . . . pg 26

Sensaphone 2800
When you can't get wires to your sensors, the Model 2800 is the best choice. The Sensaphone 2800 can monitor up to four hard wired sensors and four wireless sensors. A variety of wireless sensors are available including ultra low temperature measurement.

FGD-2800-CD. . . . . pg 30

IMS-1000
The IMS-1000 is similar to the Web600 in that it is a web-based monitoring solution, but it goes a little bit further. Instead of monitoring up to six sensors, it can monitor eight. The IMS-1000 also has the option of a phone line connection in addition to the Ethernet computer network connection. So, even if your computer network is not working, the IMS-1000 can still use a standard phone line to notify of a problem.

IMS-1001. . . . . pg 63
IMS-1002. . . . . pg 63

IMS-4000
For a wide area enterprise solution, we recommend the IMS-4000. It is similar to the IMS-1000 with both the Ethernet connection and a phone line connection, but designed for monitoring multiple locations. The IMS-4000 system is made up of one Host and up to 31 Nodes that can be spread out over a large area. Each Host or Node can monitor up to eight sensors, and the group of Hosts and Nodes can be managed from one common interface. The Nodes can be in a different room as the Host, or a different building, or even a different country. The IMS-4000 provides a very modular and expandable remote monitoring solution.

IMS-4001. . . . . pg 64

Recommended IMS Accessories

Ultra–Low Temp Sensor
Designed to monitor temperatures from -122° to 53°F inside refrigerators and freezers.

IMS-4814. . . . . pg69

Recommended Wireless Accessories

Wireless Temp Sensor
The Wireless Temperature Sensor includes a built in radio transmitter and temperature element for monitoring temperatures from -109° to 115°F.

WSR-0100 . . . . . pg32

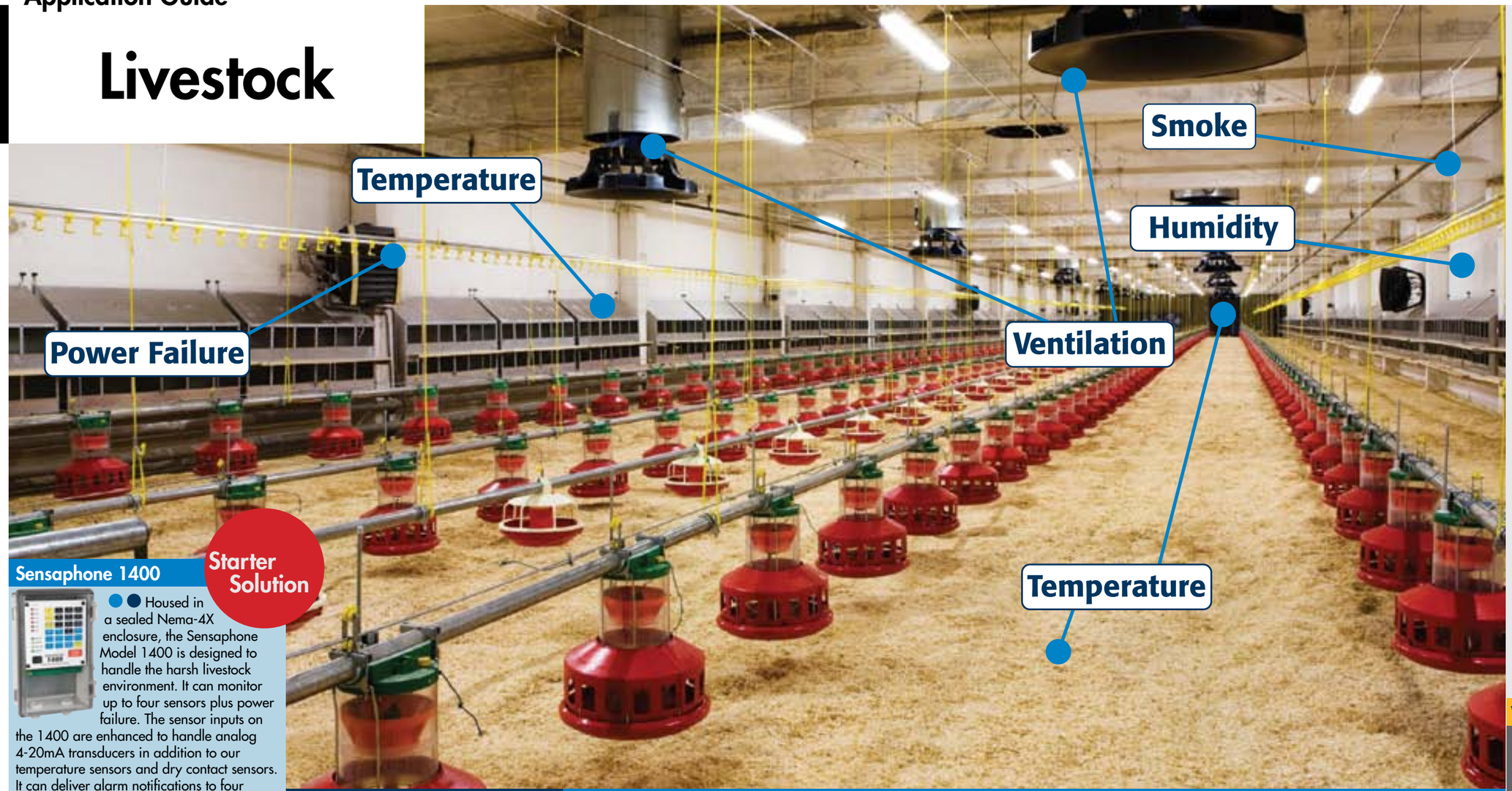
Recommended General Accessories

2.8K Temperature Probe
This sensor makes monitoring temperatures at a location away from a Sensaphone unit. Monitors temperatures from -109° to 115°F.

FGD-0101 . . . . . pg44

Application Guide

Livestock



What's Important In Your LIVESTOCK facility?

- Air Temperature
- Humidity
- Ventilation
- Power Failure
- Smoke and Fire
- Security

Whether you're raising swine, poultry, or some other animal, a simple equipment failure can quickly spell disaster if not fixed right away. To help keep your livestock alive and healthy, you need to watch over their environment and respond quickly to any problems that may arise. Sensaphone products provide the instant alarm notification that you need to keep things running smoothly.

Sensaphone 1400

Starter Solution

● ● Housed in a sealed Nema-4X enclosure, the Sensaphone Model 1400 is designed to handle the harsh livestock environment. It can monitor up to four sensors plus power failure. The sensor inputs on the 1400 are enhanced to handle analog 4-20mA transducers in addition to our temperature sensors and dry contact sensors. It can deliver alarm notifications to four people using customized voice messages.

FGD-1400 . . . . . pg 28

2.8K Temperature Probe ●

One or more remote temperature sensors will be needed depending on the size of your livestock buildings. Add more to cover larger facilities.

FGD-0101 . . . . . pg 44

Carbon Dioxide Sensor ●

Monitoring the Carbon Dioxide concentration in your livestock facility can provide an accurate status of your ventilation and overall animal health.

FGD-0068 . . . . . pg 53
FGD-0053 . . . . . pg 49

Other Sensaphone Solutions

Sensaphone 1800 ● ●

The Model 1800 provides everything that the Model 1400 does, except that it can accept eight sensors and call eight phone numbers instead of four.

FGD-1800 . . . . . pg 28

Sensaphone 2800 ● ● ●

Upgrading to the Sensaphone Model 2800 provides everything that the Model 1800 has with the addition of wireless sensors. The 2800 can monitor four hard wired sensors plus four wireless sensors.

FGD-2800 . . . . . pg 30

Recommended Accessories

Humidistat ●

Detect high or low humidity inside the area being monitored.

FGD-0027 . . . . . pg48

Humidity Transmitter ●

A low profile humidity transducer that transmits actual humidity levels to the Sensaphone.

FGD-0052 . . . . . pg48

Power Out Alert ●

Monitor power outages by plugging the unit into any 110VAC outlet.

FGD-0054 . . . . . pg49

Smoke Detector ●

Detects the presence of smoke inside the monitored area.

FGD-0049 . . . . . pg 51

Magnetic Reed Switch ●

Used to detect any unauthorized entry or intrusion. Typically installed on doors or windows, several switches may be wired in series.

FGD-0006 . . . . . pg 52

Infra–Red Motion Detector ●

Detects movement in a specific area to monitor for unauthorized entry or intrusion. Covers approximately forty feet of area.

FGD-0007 . . . . . pg 51

Carbon Monoxide Sensor ●

Detects the presence of Carbon Monoxide levels from 0-300ppm. The 1" x .5" LCD displays the ppm and menu parameters.

FGD-0065 . . . . . pg 54

Wireless Accessories

● *The Sensaphone line of wireless sensors is only compatible with the Sensaphone 2800.*

Wireless Temp Sensor ●

Wirelessly monitors temperatures from -109° to 115°F.

WSR-0100 . . . . . pg 32

Wireless Humidity Sensor ●

Monitors humidity from 0 to 95% RH.

WSR-0103 . . . . . pg 32

Wireless 4-20mA Sensor ●

Used to monitor the output of any 4-20mA transducer.

WSR-104. . . . . pg 33

Wireless Dry Contact Sensor ●

Connects to any normally open or normally closed output via input terminals on the front of the sensor.

WSR-0101 . . . . . pg 32

Application Guide

Greenhouse

What's Important In Your GREENHOUSE?

- Indoor Temperature
- Outdoor Temperature
- Humidity
- Carbon Dioxide Levels
- Power Failure
- Security

Keeping your plants alive and healthy requires the best possible growing environment. Sensaphone can provide you with the proper notification system to let you know immediately when something is not perfect in your greenhouse. Many conditions can be monitored from sensors available from Sensaphone, but third party aftermarket sensors can work as well. Receive instant phone call notification as soon as conditions deviate from acceptable levels.

Sensaphone 400

Starter Solution

● The Sensaphone Model 400 can monitor the basic concerns in a greenhouse. It comes with one built-in temperature sensor and can also monitor for power failure and listen for the sound of a smoke detector. If any problems are detected, it can notify four people by custom voice message phone calls.

FGD-0400 . . . . . pg 26

2.8K Temperature Probe ●
Adding a remote temperature sensor allows the temperature to be monitored away from the Model 400 for outdoor temperatures, or to help cover a larger facility.

FGD-0101 . . . . . pg 44

Other Sensaphone Solutions

Sensaphone 800 ●
The Sensaphone Model 800 is very similar to the Model 400, but allows for eight monitored sensors instead of four, and can notify eight phone numbers instead of four.

FGD-0800 . . . . . pg 26

Sensaphone 1400 ● ●
The Model 1400 has four sensor inputs like the Model 400, but the inputs are more flexible allowing for analog 4-20mA transducers, like the Carbon Dioxide sensor. The 1400 is also packaged in a NEMA 4-X sealed weatherproof enclosure with built-in rechargeable batteries.

FGD-1400 . . . . . pg 28

Sensaphone 1800 ● ●
The Model 1800 provides everything that the Model 1400 does, except that it can accept eight sensors and make eight phone calls instead of four.

FGD-1800 . . . . . pg 28

Sensaphone 2800 ● ● ●
Upgrading to the Model 2800 allows the use of wireless sensors in addition to hard–wired sensors. It has very similar capabilities to the Model 1800, but it monitors four hard–wired sensors plus four wireless sensors that can be located up to 300 feet away.

FGD-2800 . . . . . pg 30

Recommended Accessories

Humidistat ●
Detect high or low humidity inside the greenhouse.

FGD-0027 . . . . . pg 48

Humidity Transmitter ●
A low profile humidity transducer that transmits actual humidity levels to the Sensaphone. *(Not compatible with the 400/800)*

FGD-0052 . . . . . pg 48

Carbon Dioxide Sensor ●
Monitor Carbon Dioxide levels from 0 to 2,000ppm. *(Not compatible with the 400/800)*

FGD-0068 . . . . . pg 53

Power Out Alert ●
Monitor power outages by plugging the unit into any 110VAC outlet.

FGD-0054 . . . . . pg 49

Smoke Detector ●
Monitors for the presence of smoke inside the greenhouse.

FGD-0049 . . . . . pg 51
FGD-0049-B . . . . . pg 51

Magnetic Reed Switch ●
Used to detect any unauthorized entry or intrusion. Typically installed on door or windows, several switches may be wired in series.

FGD-0006 . . . . . pg 52

Infra–Red Motion Detector ●
Detects movement in a specific area to monitor for unauthorized entry or intrusion. Covers approximately forty feet of area.

FGD-0007 . . . . . pg 51

Recommended Wireless Accessories

● *The Sensaphone line of wireless sensors is only compatible with the Sensaphone 2800.*

Wireless Temp Sensor ●
Wirelessly monitors temperatures from -109° to 115°F inside the greenhouse.

WSR-0100 . . . . . pg 32

Wireless Humidity Sensor ●
Monitors humidity from 0 to 95% RH.

WSR-0103 . . . . . pg 32

Wireless 4-20mA Sensor ●
Used to monitor the output of any 4-20mA transducer.

WSR-104. . . . . pg 33

Wireless Dry Contact Sensor ●
Connects to any normally open or normally closed output via input terminals on the front of the sensor.

WSR-0101 . . . . . pg 32

Remote Monitoring Via Cellular

CELL682

NEW for 2011

Description

The Cell682 uses standard cellular technology to communicate with the Sensaphone servers. If a telephone line is not already in place, the cellular communications in the Sensaphone Cell682 can provide a convenient, reliable, and cost effective method to monitor a remote facility.

The Cell682 can be placed at a remote, unmanned facility to detect a variety of potential equipment problems, and can even perform some output control.

The Sensaphone Cell682 provides an assortment of sensor input options to handle many different types of sensors and conditions to monitor. Two relay outputs are also included in the Cell682 for local control.

Enclosed in a sealed, weatherproof, lockable enclosure, the Cell682 is suitable for use in harsh or corrosive environments. LED's on the face of the unit afford local indication of alarm and status conditions.

When an input channel detects an alarm there is an immediate communication from the CELL682 to the Sensaphone servers to process the alarm. The appropriate people are then contacted immediately via e-mail, cell phone and pager text messages or custom voice phone calls.

A website is provided for status, history, alarm response programming, and manual output control.

Why choose the CELL682?

- Wireless Cellular, no need for phone line
- Website to access status and programming
- Multiple Analog 4-20mA inputs
- Output control
- Supports remote peer to peer control

Description	Part Number
CELL682 w/ Clear Door	FGD-CELL682-CD
CELL682 w/ Solid Door	FGD-CELL682-SD
CELL682 w/ Clear Door for Canada	FGD-CELL682-CD-CAN
CELL682 w/ Solid Door for Canada	FGD-CELL682-SD-CAN
Sensaphone CELL682 One year of communication service	FGD-CELL1Y

*Contact us for availability and part numbers for other regions

Communication:

- GSM Cellular Wireless Technology
- 90+% Wireless Coverage

Alarm Delivery:

- 24 Programmable destinations
- E-Mail Alarm Delivery
- SMS Text Message
- Custom Voice Phone Call Alarm Delivery

Inputs:

- Six Analog 4-20mA Inputs
- Eight Contact Closure Inputs
- Run Time Accumulation

An alarm history log is available on the web page to provide details on alarms that have occurred and who acknowledged them

Outputs:

- Two Mechanical Relays
- Can Automatically Switch Based On Alarms
- Built In Duplex Pump Control Logic
- Peer to Peer Control Logic

Check status, make programming changes,and even control outputs from any internet connected computer

Local indicators:

- Alarm Status
- Wireless Account Registered
- Wireless Signal in Range
- Battery Backup Status
- Power Status
- Output States

Power

- External 110VAC transformer
- 220VAC available

The Cell682 has 8 Dry Contact inputs that can be used to monitor Normally Open (N.O.) or Normally Closed (N.C.) sensors and 6 Analog inputs that can be used to monitor 2.8K or 10K Thermistors (temperature) or 4–20mA transducers.

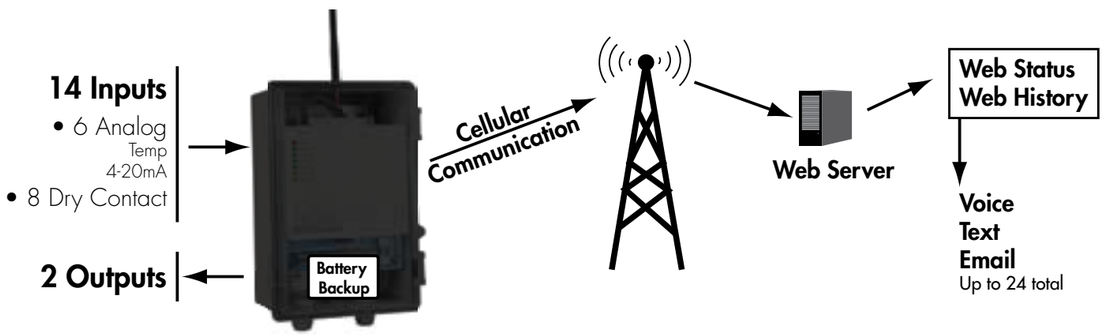
Enclosure:

- NEMA 4-X

Operating conditions:

- -22° to 140°F, -30° to 60°C

Its built-in wireless technology means you won't need a telephone line to communicate with the unit.



Coming Soon

Web based monitoring with wireless sensors

WSG-30

Description

Introducing the new Sensaphone Wireless Sensor Gateway system. The WSG-30 is a unique wireless sensor monitoring system that can be used in more than one way. As a standalone system, it can monitor a variety of conditions from the wireless sensors and directly notify the appropriate personnel by sending e-mails and text messages. The convenience of having wireless sensors allows you to move your sensors around while tracking down heat problems within a data center. The WSG-30 is perfect for monitoring refrigerators and freezers for food and medical applications where running wires may be inconvenient or costly.

Why choose the WSG-30?

- When running sensor wires is too expensive and/or inconvenient
- When the monitoring environment is very dynamic with sensing needs changing often.
- To transmit sensor information wirelessly to an existing HMI system.

The WSG-30 is smart enough to supply wireless sensor data to your existing automation software

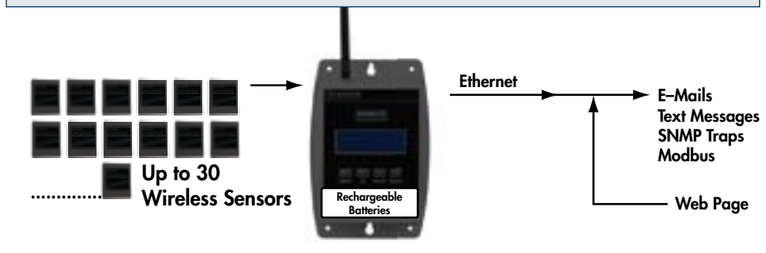
The WSG-30 can also be used within an existing industrial automation system and communicate directly with existing HMI software using the Modbus protocol. New sensors and transducers can be sent wirelessly to the WSG-30 main unit and then into your automation software. The WSG-30 is even smart enough to supply wireless sensor data to your existing automation software, and still independently send e-mail and text message alarm notifications on its own.

Wireless Sensors

Up to 30 wireless sensors can be monitored by the WSG-30 in addition to automatic power failure alarm detection and diagnostic alarms. Battery backup is also built in.

Available Wireless Sensors:

- Temperature • Humidity
- Dry Contact • 4-20mA
- Zone Water Detection
- Spot Water Detection
- Power Failure



Description	Part Number
WSG-30	FGD-WSG30

Wireless Sensor Features:

- Up to 30 wireless sensors reporting back to the main unit.
- Sensors can be up to 300 feet away.
- Creates its own Mesh Network so that sensors can be used as repeaters and routers.
- The Wireless sensors can operate on standard AA batteries for up to 3 years.
- All sensors are supervised with their battery level reported and monitored.
- If any sensor has a low battery or drops offline, a diagnostic alarm is generated and users are contacted.

Alarm Notification:

- Eight User Profiles can be programmed with 4 Contact Methods for each one, for a total of 32 alarm notifications.
- Each Contact Method can be an e-mail or a text message.
- When used in a data center environment, alarms can also be sent directly to Network Management Software using SNMP traps

Built In Alarms:

- Power Failure
- Low Backup Battery
- Sensor Diagnostics for low sensor battery or sensor not responding.

Advanced Scheduling and Selection:

- Each sensor can be programmed with a schedule so that it is only monitored for alarms when you need it.
- Even the alarm delivery to the users can be scheduled so that different people are notified for alarms depending on time of day and day of the week.
- In addition to the flexible scheduling options, there is also the ability to have different people notified for different alarms. So, only the people responsible for a particular issue will be the ones who are notified.

The WSG-30's built-in web server provides programming, configuration, and access to current status. Even alarm history and data logging can be easily accessed.

Interfacing

Web Page

The WSG-30 includes a built-in web server. Just browse to its web page for all programming, configuration, and access to current status. Even alarm history and data logging can be easily accessed through the web interface.

Local Display

For a quick local check of the sensors, there is a 4 line display and keypad interface right on the front. The status of all sensors can be easily and quickly viewed at anytime without the need for a computer.

Modbus Protocol

Support for the Modbus protocol is included in the WSG-30. Third party automation software can be used to connect and pull data for all sensor values in real time.

SNMP Management

The WSG-30 also allows full remote management using the SNMP protocol. All status values as well as programming parameters can be accessed using Get and Set commands from standard network management software.

Data Logging:

- Up to 64,000 time stamped records can be stored inside the WSG-30 to follow history and trends of the monitored conditions.
- Data log history can be accessed directly through the built-in web page, exported in a standard format, or interfaced using XML.

Battery Backup:

- The WSG-30 main unit includes an internal battery backup system that will power the device for up to two hours in case of a power failure.

Internal Web Page

Low Cost Web Based Monitoring

WEB600

Why choose the WEB600?

- Least expensive web based Sensaphone.
- Least expensive Sensaphone with data logging.
- Can be used for ultra low freezer monitoring.
- Flexible input sensor capabilities including 4-20mA analog

Description

The Sensaphone WEB600 is designed to be an easy, cost–effective, network–based monitoring system to notify you when equipment or conditions go awry. The internet browser–based programming makes the device easy to use from any computer on your network. Monitored conditions can include temperature, humidity levels, line voltage, leak detection, UPS systems, and more. The system allows multiple users to be notified immediately of any detected problems. Notification can occur via e–mail, SMS (text message) or SNMP trap. An optional battery backup system (FGD-W610-B) insures that the unit will continue to run if main power fails.

The Web600 can be used for monitoring cold food storage, medical cold storage, and other temperature sensitive areas like computer rooms and data centers.

Description	Part Number
WEB600	FGD-W600
WEB600 w/International Power Supply	FGD-W600-INT
WEB600 Battery Backup	FGD-W610-B

Features

Alarm notification methods:

- E-Mail, Text Messages, SNMP Traps
- 8 Alarm escalation levels
- Comprehensive scheduling per input, profile, and alarm destination

Destinations:

- 8 Programmable User Profiles
- 4 programmable alarm destinations per profile

Communication types:

- E-Mail – SMTP
- Text Messages
- Web page – Supported formats HTTP, PDA, WAP, and XML
- SNMP – MIB with Traps, GET, GETNEXT, and SET
- MODBUS®/TCP Slave Conformance Class 0 and 1

Inputs:

- 6 Universal Inputs
- Normally Closed / Normally Open Dry Contact
- 2.8K / 10K Thermistor
- 4-20mA Current Loop
- 12 Bit Resolution

Data logging

- 32,000 Samples (all samples include data date and time)
- 1 second to 1 month sampling rate
- User programmable channel selection
- Zones 1 – 6
- Battery
- Input Power

Communication Ports:

- Ethernet 10/100Base–T

Local indicators:

- Alarm Status LED
- Power Status LED
- Ethernet link and Activity LEDs

Battery Backup

Description

The WEB600 Battery Backup module (FGD-W610-B) provides uninterrupted backup power when main power fails. The module includes a rechargeable battery and is monitored by charge control circuitry to keep the battery fully charged while connected to a powered WEB600. The module can provide up to 2 hours of backup time in the event of a power failure.

Power requirements:

- External transformer 120VAC 60Hz, 220VAC 50Hz available.
- Optional Battery Backup Module (FGD-W610-B)
- Provides 2 hours of backup

Operating conditions:

- 0-90% RH, non–condensing
- 0-50°C (32–122°F)

Physical properties:

- 5.5” x 3.25” x 1.25”
- 0.5lbs

Basic Phone Notification

SENSAPHONE 400 & 800

Why choose the 400 or 800?

- The 400 is the least expensive Sensaphone.
- Convenience of voice telephone calls for alarms and status.
- Optional remote thermostat control.
- Best way to monitor a vacation home with no monthly fee.

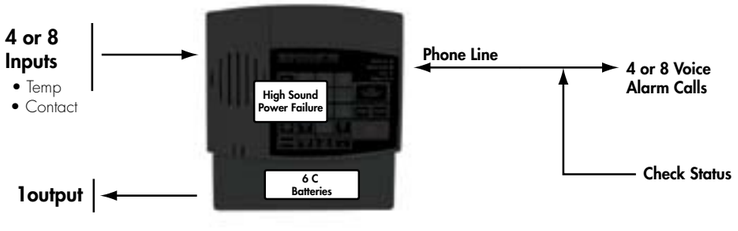
Description

The Sensaphone Model 400 is a fully–programmable, remote monitoring system for small businesses, private homes, farms, greenhouses, computer rooms and other facilities. Designed for desktop or wall mounting, the Model 400 is simple to install, program and operate; no changes to standard electrical or telephone service are required. When connected to a telephone line, it will respond to an alarm by dialing up to four separate telephone numbers. When the call is answered, an "Alert Condition" message is delivered in a user recordable voice.

The Model 400 is simple to install, program and operate; no changes to standard electrical or telephone service are required

The 400 also includes nonvolatile memory and a 24–hour battery backup with 6 "C" user installed batteries. The built in relay output can be used to control a dual setback thermostat, allowing you to call your vacation home before you arrive and change the temperature.

When the 400's four inputs or phone call out destinations isn't enough, the Sensaphone Model 800 provides eight inputs and phone call destinations.



**Comes with temperature sensor already installed on the first input.*

Description	Part Number
Sensaphone 400	FGD-0400
Sensaphone 400 w/ International Power Supply	FGD-0400-INT

Features

No Monthly fees

Sensaphone Monitoring Systems

Input Zones:

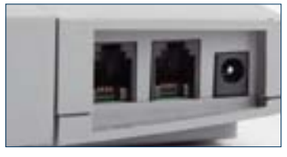
- Four or eight inputs that support:
  - Normally Open or Normally Closed contacts
  - Temperature sensors: -109°F to 168°F
  - Four inputs in Model 400
  - Eight inputs in Model 800
- Automatic input type configuration
- Programmable recognition times.
- Internal calibration.

Remote Access:

- Call in with any Touch-Tone phone to check the status of all monitored conditions.
- Make programming changes remotely from any Touch-Tone phone.

Alarm Notification:

- The 400 can call four different people, 800 can call eight.
- Makes voice phone calls with customized messages for easy identification.



- Built-in alarm test function to simulate and test the notification process.
- Includes line seizure.

Voice Messages:

- Built in vocabulary for keypad programming and sensor readings.
- Record custom voice phrases in your own voice to describe each input zone.
- Record site identification message.

Local Access:

- Keypad and speaker for local programming.
- Easy voice-prompted programming.
- Password-protected to restrict remote programming access.

Output Relay:

- Low voltage NO/NC output relay included
- Manual or automatic alarm response switching.

Microphone:

- Internal microphone for custom voice message recording.
- Monitor high sound alarms.
- Microphone can be used for listen-in feature.

Power Supply:

- Comes with plug-in power supply.
- 24 hour battery backup with user provided C cell batteries.
- Automatically monitors for power failure alarms.

Other:

- Includes telephone line seizure.
- Superior internal lightning protection.
- One-year warranty.

Description	Part Number
Sensaphone 800	FGD-0800
Sensaphone 800 w/ International Power Supply	FGD-0800-INT

SENSAPHONE
Monitoring Solution

Rugged Professional Phone Notification

1400 & 1800

Alarm Call History Log

Sensaphone Monitoring Systems

Description

Like the 400, the 1400's voice phone calls are customized, so that users can hear each alarm described in detail and in their own voice. The 1400 is perfect for ultra-low freezer monitoring all the way down to -85°C. Also a built in system identifies who responds to any alarm phone call, and tracks respondents with a history log.

The 1400 includes an output relay so that a local device can be switched on when an alarm occurs, as well as a line-seizure feature. LEDs on

While performing all of the functions of the Model 400, the Sensaphone 1400 comes in a sealed, weatherproof, lockable enclosures, making them suitable for harsh or corrosive environments.

the face of the units afford local indication of alarm and status conditions. And an additional input type, 4–20mA, not supported in the 400, is available in the 1400 and 1800 units.

When the 1400's four inputs aren't enough, the Sensaphone 1800 includes eight inputs. The 1800 is also capable of alphanumeric paging.

Why choose the 1400 or 1800?

- Able to monitor outdoors in harsh environments.
- Can monitor temperatures down to -85°C.
- Supports 4-20mA transducers

Description	Part Number
Sensaphone 1400 w/NEMA 4X Clear Door Enclosure	FGD-1400-CD
Sensaphone 1400 w/NEMA 4X Clear Door Enclosure with International Power Supply	FGD-1400-CD-INT
Sensaphone 1400 w/Solid Door Enclosure	FGD-1400-SD
Sensaphone 1400 w/Solid Door Enclosure with International Power Supply	FGD-1400-SD-INT

Input Zones:

- Four or eight universal inputs that support:
  - Normally Open or Normally Closed contacts
  - 4–20mA transducers
  - Temperature sensors: -109°F to 168°F
- Automatic input type configuration
- Scalable range for analog zones.
- Programmable recognition times.
- Internal calibration.

Remote Access:

- Call in with any Touch-Tone phone to check the status of all monitored conditions.
- Make programming changes remotely from any Touch-Tone phone.

Alarm Notification:

- Up to eight destinations can be contacted for alarms.
- Makes voice phone calls with customized messages for easy identification.
- Built-in alarm test function to simulate and test the notification process.
- Individual user codes to track who responded to each alarm.
- 1800 is capable delivering messages to a alpha pager.

Output Relay:

- One universal output relay. Manual or automatic alarm response switching.

Local Access:

- Keypad and speaker for local programming.
- Easy voice-prompted programming.
- Password-protected to restrict remote programming access.
- Recent alarm history playback.

Microphone:

- Internal microphone for custom voice message recording.
- Optional external microphone for monitoring high sound alarms.
- External microphone can also be used for remote listen-in feature.

Power Supply:

- Comes with plug-in power supply.
- Battery backup included.
- Automatically monitors for power failure alarms.

Other:

- Includes telephone line seizure.
- NEMA-4 enclosure.
- Superior internal lightning protection.
- Two-year warranty for 1400.
- Three-year warranty for 1800.

Description	Part Number
Sensaphone 1800 w/NEMA 4X Clear Door Enclosure	FGD-1800-CD
Sensaphone 1800 w/NEMA 4X Clear Door Enclosure and International Power Supply	FGD-1800-CD-INT
Sensaphone 1800 w/Solid Door Enclosure	FGD-1800-SD
Sensaphone 1800 w/Solid Door Enclosure with International Power Supply	FGD-1800-SD-INT

Phone Notification with Wireless Sensors

SENSAPHONE 2800

Description

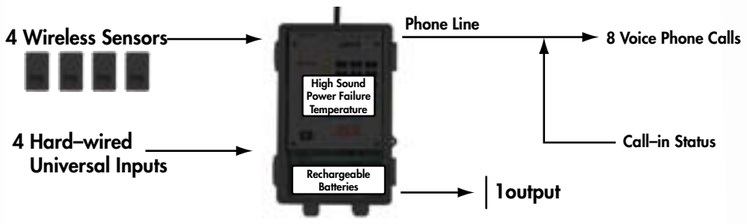
The Sensaphone 2800 adds the ability to read sensor status from wireless sensors. And not just simple on/off status, or open/closed conditions. You can use up to four Sensaphone wireless sensors with the 2800. A variety of wireless sensor types are available to choose from, including temperature, humidity, power failure, motion detector, and water detection.

In addition to the wireless sensors, there are also two Wireless Interface modules. A Dry Contact wireless module and a 4-20mA wireless module allow a connection to existing equipment or sensors and transmit their status back to the 2800 wirelessly.

The Sensaphone wireless technology includes full analog capability

In addition to looking for alarms from the sensor values, it is also looking to make sure that each wireless sensor is fully functional and its batteries are full. If there are any problems with the wireless sensors, the 2800 will initiate a diagnostic alarm and notify the appropriate personnel immediately.

The 2800 uses the reliability of a standard phone line to make phone calls to the appropriate personnel to announce alarm conditions. Each monitoring condition, both wired and wireless, can have a custom voice message attached to it. Each message is recorded in your own voice for easy alarm identification. Alarm notification will report out to eight people until acknowledged.



Why choose the 2800?

- Monitor without running wires
- Easy to relocate sensors
- Monitors down to -85°C with wired or wireless sensors.
- Supports 4-20mA transducers and inputs

Description	Part Number
Sensaphone 2800 Wireless Monitoring System w/ Clear Door	FGD-2800-CD
Sensaphone 2800 Wireless Monitoring System w/ Solid Door	FGD-2800-SD

Features

Input Zones:

- Four hard wired and four wireless universal inputs that support:
  - Normally Open or Normally Closed contacts
  - 4–20mA transducers
  - Temperature sensors: -109°F to 168°F
- Automatic input type configuration
- Scalable range for analog zones.
- Programmable recognition times.
- Internal calibration.

Wireless Sensors:

- 6 Wireless sensors in product line to choose from:

  Temperature, Power Failure, Humidity, Motion Detector, Spot Water and Zone Water Detection.
- 2 Wireless Interface Modules:
  - Dry Contact and 4-20mA
- Wireless repeater to expand range

Wireless Sensor Range:

- 300’ line of site
- 4,000’ line of site with repeater

Remote Access:

- Call in with any Touch-Tone phone to check the status of all monitored conditions.
- Make programming changes remotely from any Touch-Tone phone.

Output Relay:

- One universal output relay. Manual or automatic alarm response switching.

Alarm Notification:

- Up to eight destinations can be contacted for alarms.
- Makes voice phone calls with customized messages for easy identification.
- Built-in alarm test function to simulate and test the notification process.
- Individual user codes to track who responded to each alarm.

Power Supply:

- Comes with plug-in power supply.
- Battery backup included.
- Automatically monitors for power failure alarms.

Local Access:

- Keypad and speaker for local programming.
- Easy voice-prompted programming.
- Password-protected to restrict remote programming access.
- Recent alarm history playback.

Microphone:

- Internal microphone for custom voice message recording.
- Optional external microphone for monitoring high sound alarms.
- External microphone can also be used for remote listen-in feature.

Other:

- Includes telephone line seizure.
- NEMA-4 enclosure.
- Superior internal lightning protection.
- Three-year warranty.

SENSAPHONE Monitoring Sensor

2800 Wireless Sensors

Wireless Indoor Temperature Sensor

Description

This sensor includes a built-in radio transmitter and temperature element for monitoring temperature wherever the device is installed. You can also remove the internal temperature element and connect a remote temperature probe so that measurements can be made in a refrigerator, freezer or other harsh environment. The sensor comes with 3 AAA alkaline batteries which will power the sensor for up to 3 years.

Specifications

Temperature Range: 32° to 122°F (0° to 50°C)

Accuracy: ±1%

Battery Life: 3 years

Range (Indoor/Urban): Up to 100’ (30m)

Range (Line-of-sight): Up to 300’ (100m)

Power: (3) AAA alkaline batteries and/or 5VDC (300mA) plug-in adapter

Wireless Indoor Temperature Sensor WSR-0100

Wireless Indoor Dry Contact Sensor

Description

This sensor includes a built-in radio transmitter and input terminals for connecting to any normally-open or normally closed output. (Use of this device with solid-state outputs is not recommended.) The sensor comes with 3 AAA alkaline batteries which will power the sensor for up to 3 years. An optional plug-in power supply is also available. The batteries then become a backup if main AC power fails.

Specifications

Temperature Range: 32° to 122°F (0° to 50°C)

Accuracy: ±1%

Battery Life: 3 years

Range (Indoor/Urban): Up to 100’ (30m)

Range (Line-of-sight): Up to 300’ (100m)

Power: (3) AAA alkaline batteries and/or 5VDC (300mA) plug-in adapter

Wireless Indoor Dry Contact Sensor WSR-0101

Wireless Indoor Power Failure Sensor

Description

The WSR-0102 Wireless Indoor Power Failure sensor is designed to work with the Sensaphone 2800 Environmental Monitoring System. This sensor includes a built-in radio transmitter, AAA alkaline batteries and a wall plug in power supply. The sensor will detect a loss of power at the outlet where the power supply is attached. The 3 AAA alkaline batteries will power the sensor and allow it to transmit alarm information in the event that AC power fails.

Specifications

Temperature Range: 32° to 122°F (0° to 50°C)

Accuracy: ±1%

Battery Life: 3 years

Range (Indoor/Urban): Up to 100’ (30m)

Range (Line-of-sight): Up to 300’ (100m)

Power: (3) AAA alkaline batteries and 5VDC (300mA) plug-in adapter

Wireless Indoor Power Failure Sensor WSR-0102

Wireless Indoor Humidity Sensor

Description

The WSR-0103 includes a built-in radio transmitter and humidity sensor element for monitoring humidity wherever the device is installed. The sensor comes with 3 AAA alkaline batteries which will power the sensor for up to 3 years. An optional plug-in power supply is also available. The batteries then become a backup if main AC power fails.

Specifications

Temperature Range: 32° to 122°F (0° to 50°C)

Accuracy: ±3% from 20-80% (±5% otherwise)

Battery Life: 3 years

Range (Indoor/Urban): Up to 100’ (30m)

Range (Line-of-sight): Up to 300’ (100m)

Power: (3) AAA alkaline batteries and/or 5VDC (300mA) plug-in adapter

Wireless Indoor Humidity Sensor WSR-0103

SENSAPHONE Monitoring Sensor

2800 Wireless Sensors

Wireless Indoor 4-20mA Sensor

Description

The WSR-0104 Wireless Indoor 4-20mA sensor is designed to work with the Sensaphone 2800 Environmental Monitoring System. This sensor includes a built-in radio transmitter, 4-20mA input and a 24V loop power supply. The sensor can be used to monitor the output of any 4-20mA transducer. The sensor comes with a plug-in power supply and 3 AAA alkaline batteries which will power the sensor for several hours if main AC power fails.

Specifications

Temperature Range: 32° to 122°F (0° to 50°C)

Accuracy: ±1%

Battery Life: 3 years

Range (Indoor/Urban): Up to 100’ (30m)

Range (Line-of-sight): Up to 300’ (100m)

Power: (3) AAA alkaline batteries and 5VDC (300mA) plug-in adapter

Wireless Indoor 4-20mA Sensor WSR-0104

Wireless Indoor Motion Detector

Description

The WSR-0105 Wireless Motion Detector is designed to work with the Sensaphone 2800 Environmental Monitoring System. This sensor includes a built-in radio transmitter, and three AA alkaline batteries to power the device. The batteries will provide up to three years of service. The device will detect motion of heat sources using infrared sensing technology and transmit this information to the Sensaphone 2800 using wireless technology.

Specifications

Temperature Range: 32° to 122°F (0° to 50°C)

Infrared Motion Detect Range: Approximately 40’

Range (Indoor/Urban): Up to 100’ (30m)

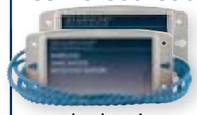
Range (Line-of-sight): Up to 300’ (100m)

Power: (3) AAA batteries

Battery Life: 3 Years

Wireless Indoor Motion Detector. WSR-0105

Wireless Water Detection Sensors



Description

These sensors include a built-in radio transmitter and water sensing probes for monitoring the presence of water at a particular location. The Zone Water Detection Sensor comes with ten feet of water sensing cable. The size of the monitored area can be extended by attaching additional lengths of WaterRope (FGD-0063) to the end of the included WaterRope. Up to ten lengths of WaterRope (100’) to one Zone Water Detector.

Specifications

Temperature Range: 32° to 122°F (0° to 50°C)

Range (Indoor/Urban): Up to 100’ (30m)

Range (Line-of-sight): Up to 300’ (100m)

Power: (3) AA alkaline batteries

Battery Life: Up to 3 years

Wireless Spot Water Detection Sensor. WSR-0106

Wireless Zone Water Detection Sensor WSR-0107

Wireless Repeater

The wireless repeater allows you to have a greater distance between your wireless sensors and the Sensaphone 2800. It contains a more powerful radio transceiver which can transmit up to 300’ indoors and up to 4,000’ (line-of-sight). Only one repeater can be used per Sensaphone 2800. The sensor comes with a plug-in power supply and 3 AAA alkaline batteries for back-up in the event of an AC power failure.

Wireless Repeater WSR-0199

Outdoor Weatherproof Antenna

The weatherproof antenna allows you to place your Sensaphone 2800 in a location that would normally have reduced signal contact with the wireless sensors (such as in a metal cabinet or outside a building). It includes a mast mounting kit which includes a heavy duty steel bracket, and a pair of U-bolts.

Weatherproof Antenna FGD-2810

Phone Notification with Future Expansion

SENSAPHONE Express II

Description

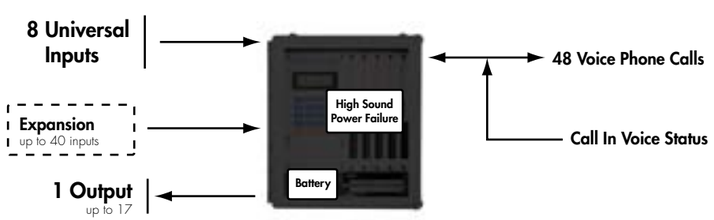
The Express II is a powerful environmental and process monitoring system. It handles your current monitoring, alarm and control needs, and is able to grow when your application grows.

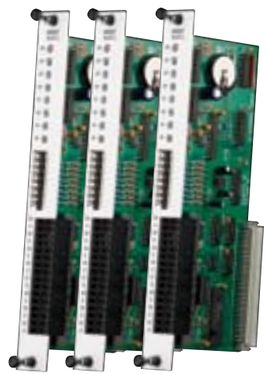
The Express II is able to grow when your application grows

Express II comes standard with 8 universal input channels and one built-in relay output. Input capacity is expandable up to 40 channels (on 5 cards). Output capacity may be expanded up to 16 channels (on two cards), in which case input is limited to 24 channels (3 cards).

Express II can call up to 48 phone contacts, using Touch-Tone dialing. Dialing schedules and phone contact list features enable you to create a priority dialing list depending on which input is alarm-activated, the time of day, and day of week. Call progress detection ensures that no time is wasted on busy signals and no-answers during the dialout sequence.

Why choose the Express II?
- *Future expandability for inputs and outputs*
- *Voice guided keypad interface*
- *Custom voice alarm phone calls*





Description	Part Number
Sensaphone Express II with 8 Input Card	FGD-6700
Express II Expansion Card, Additional 8 Inputs in Card Slot 2	FGD-0035
Express II Expansion Card, Additional 8 Inputs in Card Slot 3	FGD-0036
Express II Expansion Card, Additional 8 Inputs in Card Slot 4	FGD-0037
Express II Expansion Card, Additional 8 Inputs in Card Slot 5	FGD-0038
Express II Expansion Card, 8 Relay Outputs - Primary	FGD-0040
Express II Expansion Card, 8 Additional Relay Outputs - Secondary	FGD-0041

Features

Input Zones:

- 8 standard universal inputs support:
  - Normally Open or Normally Closed contacts
  - 4–20mA transducers
  - Temperature sensors: -85°F to 300°F
- Pulse counter
- Automatic input type configuration
- Scalable range for analog zones
- Programmable recognition times
- Internal calibration

Expandability:

- Up to 40 inputs on 5 cards
- Up to 16 outputs on 2 cards

Remote Access:

- Call in with any Touch-Tone phone to check the status of all monitored conditions.
- Make programming changes remotely from any Touch-Tone phone.

Alarm Notification:

- Up to 48 destinations can be contacted for alarms.
- Makes voice phone calls with customized messages for easy identification.
- Built-in alarm test function to simulate and test the notification process.

Output Relay:

- One universal output relay. Manual or automatic alarm response switching.

Power Supply:

- Comes with plug-in power supply.
- Battery backup included.
- Automatically monitors for power failure alarms.

Local Access:

- Keypad and speaker for local programming.
- Easy voice-prompted programming.
- Password-protected to restrict remote programming access.
- Recent alarm history playback.

Microphone:

- Internal microphone for custom voice message recording.
- Optional external microphone for monitoring high sound alarms.
- External microphone can also be used for remote listen-in feature.

Other:

- Includes telephone line seizure.
- NEMA-4 enclosure.
- Superior internal lightning protection.
- One-year warranty.

Phone Notification with Data Logging for Multiple Sites

SENSAPHONE 2000

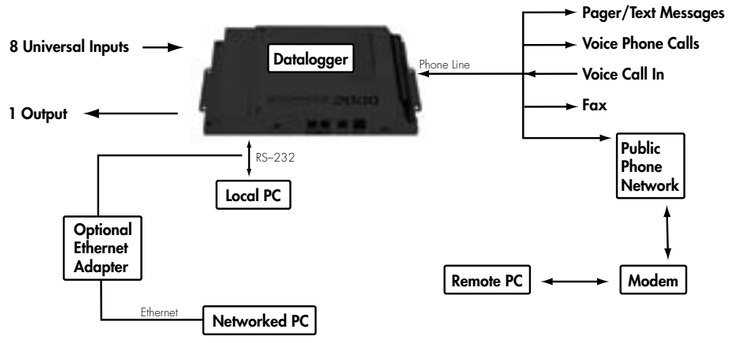
Why choose the 2000?
- Data logging -
- Supports multiple sites back to a single computer
- Uses a standard phone line

Description

The 2000 is a powerful monitoring, alarm, and data logging system. It can monitor equipment and environmental conditions using 8 universal inputs, plus built-in power failure detection. The Sensaphone 2000 also features a programmable output and a wide variety of communication options: user recordable voice, fax, modem, numeric pager, alphanumeric pager, and internet e-mail. In addition, you can generate a web page based on the information in your 2000 and post it on the internet at a programmable time interval.

The unit will monitor and alarm on (8) universal inputs including: N.O./N.C. contact, 2.8K & 10K thermistor, 4–20mA, 0–5V, run time accumulator, and pulse count. The unit will also monitor AC power and battery condition. The 2000 also includes a relay output which may be controlled manually through the software, remotely via touch-tone telephone, or automatically using programmable high and low set points.

When multiple remote sites need to be monitored and data logged, the Sensaphone 2000 makes it easy



Description	Part Number
Sensaphone 2000	FGD-2000
Sensaphone 2000 w/ International Power Supply	FGD-2000-INT

Features

Dialing Parameters:

- Programmable call list for each input
- Alarm acknowledgment:
- Touch tones, callback, or modem
- Call progress monitoring:

  Detect dial tone, busy signals & ringback
- Programmable time between calls:

  30 seconds to 60 minutes

Alarm Notification:

- 32 destinations
- 36-digit telephone numbers
- 64 character e-mail addresses

Inputs:

- 8 Universal Inputs & 1 AC Power:
- Normally Open / Normally closed dry contact
- 2.8K / 10K thermistor
- 4-20mA current loop or 0-5V analog voltage
- 10 bit resolution

Communication Types:

- Voice, fax, modem, e-mail, numeric pager, alphanumeric pager, web page

Speech Technology:

- User-recordable voice for eight input alarm messages and one ID message

Built-in Data Modem:

- Data throughput 14,400 bps
- 14,400 bps Fax
- Protocols: V.32bis, V.32, V.22bis, V.22A/B, V.23, V.21, Bell 212A & 103

Data Logging:

- Up to 32,000 samples (all samples include date and time)
- 1 second to 200 hour sampling rate
- User programmable channel selection—inputs 1-8
- AC power & battery backup

Power Requirements:

- 120VAC Standard, 220VAC optional
- Built in 10 hour battery backup

Communication Ports:

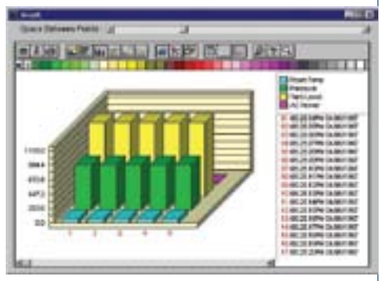
- RS232 programming port

  Used for local programming & setup
- DB9 female DCE

  38,400 bps

Relay output

- 1 Form–C Normally Open/ Normally Closed
- Relay Rating: 1 Amp 30VAC/24VDC



Local Indicators:

- Inputs 1–8 Alarm Status LEDs
- System On LED
- Power Alarm LED
- Phone LED
- Battery OK LED
- Output LED

Description	Part Number
Sensaphone 2000 in NEMA 4X enclosure	FGD-2000-E
Ethernet Kit for Sensaphone 2000	FGD-0300

Industrial Monitoring

SENSAPHONE SCADA 3000

Description

The Sensaphone SCADA is a very advanced and unique system in the Sensaphone industrial line. Flexible communication options allow the system to communicate with a host PC through standard RS232 serial, standard data radio, ordinary telephone lines or a mix of both. The SCADA 3000 will call you using your own pre-recorded voice messages to alert you to the situation, or contact you via fax, numeric / alphanumeric pager, e-mail, or even by creating web pages of data. Each Sensaphone SCADA 3000 includes 16 universal inputs and eight relay outputs. But the system can grow as the needs of your application grow—expanding to 144 I/O points by adding expansion modules.

With our SCADA system, everything comes in one comprehensive package for all the sophisticated control and alarm capability you will ever need.

Why choose the scada 3000?
- 16 inputs and 8 outputs plus expansion.
- Programmable control using Ladder or C
- Uses standard phone line
- Free H/MI software

Standard with each Sensaphone SCADA 3000 is a powerful 32-bit software system complete with a real-time screen builder, program editors, alarm functions and a communications manager. Through this versatile Windows®-compatible software, you can program units, develop ladder and C-programs, retrieve data, analyze event logs and print a variety of reports.

The SCADA 3000 offers the widest variety of methods for viewing data, reports and alarm information. The interface offers maximum flexibility: Receive customized alarm messages that you record; receive polled data reports; view changing data live on a real-time screen; or even have the SCADA 3000 prepare and upload pages of data to your internet or intranet web site.

Description	Part Number
Sensaphone SCADA 3000	FGD-3000
Sensaphone SCADA 3000 Hard Wired Power Supply	FGD-3100
Sensaphone SCADA 3000 Plug in Power Supply	FGD-3110
Sensaphone SCADA 3000 5Ah Battery Supply	FGD-3200
Sensaphone SCADA 3000 18Ah Battery Supply	FGD-3210
Sensaphone SCADA 3000 Spare Fuse Kit	FGD-3220
4-Conductor RS-485 Cable for Module Expansion	FGD-0051
Ethernet Kit for SCADA 3000	FGD-0300

Features

Inputs:
- 16 standard universal inputs support:
  - Normally Open or Normally Closed contacts
  - 4–20mA transducers
  - Temperature sensors: -85°F to 300°F

8 Outputs:
- Latching 2 amp relays
- LED status indication

2 RS232 ports:
- Local programming
- Data radio communications
- RJ11 Phone interface for optional voice and data communications
- RJ11 Line Seizure jack

LCD:
- 4 by 20 character scrolling display
- User customized content for local viewing

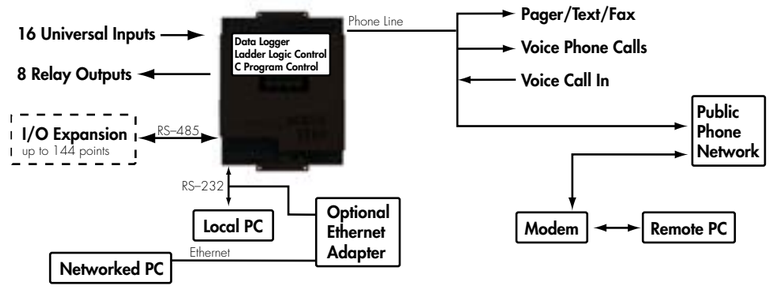
Data Logging:
- Fully user programmable built-in data storage for logging I/O points or calculated variables

Event Logging:
- Internal tracking of all significant alarms and events

Ladder Logic Programming:
- Standard ladder programming included for true PLC type control
- Visual ladder editor is part of free software package

C-Programming:
- Built-in C-compiler, allowing complex calculations C-program is capable of running on a schedule, independent of ladder program

PID:
- Eight PID loops are built-into internal programming
- Any I/O points are selectable to function in PID calculations



Communications:
- Phone modem – allows modem, fax, and pager communications
- Voice module – allows custom voice messages over standard phone lines

Options:
- Input/Output Options (expandable to 144 points)
- Universal inputs (same as 16 already built-in)
- High Speed pulse count inputs
- Relay Outputs
- Analog Outputs (4–20mA)

Power Supply Options:
- Hard wired power supply for 110 or 220 VAC operation
- Plug-in power supply – for 110 or 220 VAC operation
- Standard battery backup
- Extended battery backup

Software:
Provides the capability to program units, develop ladder programs, develop C-programs, retrieve and analyze the data and event loggers plus print all necessary reports.
- Automatically polls for data using phone lines or radio modems.
- Performs all standard SCADA functions with customized on-screen graphics

SCADA 3000 & Accessories

Universal Input Module

Description

The SCADA 3000 Universal Input Module is an optional component for use with the SCADA 3000 system. The input channels are identical to those included on the SCADA 3000 main unit. The Universal Input Module features eight channels that can be configured to interface with several different types of sensors and transducers, including: Normally Open/Normally Closed dry contacts, digital logic, run time accumulation, 0–5V analog, 4–20mA analog and 10K thermistor (ºC & ºF).

Specifications

8 Universal Inputs Configurable as:
NO/NC Dry Contact, Run Time, 0-5V Analog Voltage, 4-20mA Current Loop, 10K Thermistor

10K Thermistor Range
-100° to 300°F
-75° to 150°C

Operating Temperature:
0° to 70°C
32° to 158°F

24V Output Current:
160mA max

Power Requirements:
10-15VDC 100mA (typical) / 420mA(max)

Dimensions:
6.1” x 6.3” x 1.2”
156mm x 160mm x 30mm

Weight:
.75lbs (.34kg)

Enclosure:
Aluminum housing with integral mounting flanges for wall or panel installation.

Pulse Count Module

Description

The SCADA 3000 Pulse Count Module features four totalizing pulse count channels and four virtual channels that can be programmed to calculate various rates or to display count overflow. The four pulse count channels are capable of counting pulses at a rate of up to 10,000 pulses per second (10KHz). Each channel will totalize pulses up to one million and then reset to zero. The four virtual channels can be programmed to calculate the pulse as either pulses per second, pulses per minute or pulses per hour.

Specifications

Number of Inputs: 4

Compatible with:
Dry contact switches, relays, solid state switches, and digital 5V logic

Input Sense Voltage:
5VDC@2mA

Pulse Counting Range:
0 to 10,000 pulses per second

Operating Temperature:
0° to 70°C (32° to 158°F)

Humidity
5 to 90% non-condensing

Dimensions:
4.2” x 6.3” x 1.2”
106mm x 160mm x 30mm

Weight:
.75lbs (.34kg)

Enclosure:
Aluminum housing with integral mounting flanges for wall or panel installation.

Universal Input Module FGD-3010
Pulse Count Module FGD-3020

SENSAPHONE
Product Option
SCADA 3000 Modules

SCADA 3000 & Accessories

Relay Output Module

Description

The SCADA 3000 Relay Output Module is an optional component for use with the SCADA 3000 system. The output channels are identical to those included on the SCADA 3000 main unit. The Relay Output Module features eight latching relay outputs that can be used to switch equipment on and off. The relays are rated at 2 Amps at 125VAC and have integral contact protection. They may be controlled manually or automatically via a ladder program or C-program. In addition, a microprocessor watchdog circuit is integrated to maintain system reliability. LED indicators are provided to show system power and module operation via a blinking pulse LED.

Specifications

Latching Relay Outputs: 8

Rated Load (resistive):
2A 125VAC, 2A 30VDC

Rated Load (inductive):
1A 125VAC, 1A 30VDC

Max Operating Voltage:
125VAC, 125VDC

Minimum Permissable Load:
10mA, 5VDC

Max Switching Capacity (resistive):
125VA, 60W

Max Switching Capacity (inductive):
125VA, 30W

Power Requirements:
10-15VDC 80mA, 1.2W

Analog Output Module

Description

The SCADA 3000 Analog Output Module features four analog output signals that can be configured as 4–20mA, 0–20mA, or 0–10V. The outputs can be used to control equipment, drive digital displays, or provide information to other computer devices. The individual outputs are capable of driving up to 1000 Ohms. They may be controlled automatically via a ladder program or C-program. The module also features a microprocessor watchdog circuit to maintain system reliability. LED indicators are provided to show system power and module operation via a blinking pulse LED.

Specifications

Number of Outputs: 4

Output Current (sourcing):
0-20mA

Output Types:
4-20mA, 0-20mA, 0-10V

Power Requirements:
10-15VDC 260mA (max), 3.9W

Operating Temperature:
0° to 70°C
32° to 158°F

Humidity:
5 to 90% non-condensing

Dimensions:
4.2” x 6.3” x 1.2”
107mm x 160mm x 30mm

Weight:
.75lbs

Enclosure:
Aluminum housing with integral mounting flanges for wall or panel installation.

Relay Output Module FGD-3040
Analog Output Module. FGD-3050

100% Coverage

Remote Monitoring Via Satellite

SAT4D

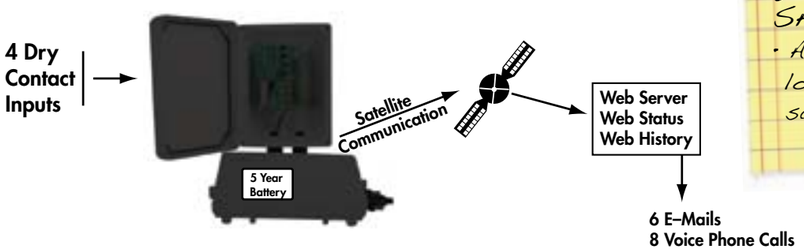
Description

Watching over a remote site can be a challenge when the location is very remote. The Sensaphone SAT4D is designed to monitor remote sites no matter where they are located. Instead of relying on phone lines or cell phone services which are not always available, the SAT4D uses direct satellite communications. The result is 100% communication coverage across the United States as well as many other countries. No need to worry about cell phone coverage maps, which carriers are in the area, or analog vs. digital support. It works everywhere, plain and simple.

The Sensaphone SAT4D is designed to monitor remote sites no matter where they are located

Not only does Sensaphone make your communication easy, but it also takes away your power source worries, too. The new SAT4D remote monitoring system requires no power at all! Mount it, connect your dry contact sensors, and walk away. The SAT4D has an internal battery that will operate for at least 5 years without power. Place it anywhere, and only come back every five years to change the battery.

The Sensaphone SAT4D can monitor up to 4 dry contact inputs for alarms. When an alarm occurs, a message is sent via satellite that is delivered to the Sensaphone SAT4D.



Why choose the SAT4D?

- Able to monitor very remote locations by using direct satellite communications.

Description	Part Number
SAT4D	FGD-SAT4D
Pole mount kit for SAT4D	FGD-SAT4D-PKIT
One year of communication service	FGD-SATD-1Y

Features

Input Zones:

- Number of Zones: 4
- Zone Connector: terminal block
- Zone Types:
  N.O./N.C. Contact

Web interface:

- Easy to use website.
- Program and check status.
- Alarm event history available on website

The SAT4D Map page shows the location of the unit and all messages received from it. Each message includes the date and time, the type of message (Status, Alarm or Cleared), a location link to highlight the location of the SAT4D at the time the message was sent and the status of each of the zone inputs.

Alarm notification:

- 6 E-mail messages
- 8 Custom voice calls

Remote Access:

- Call in with any Touch-Tone phone to check the status of all monitored conditions.
- 2 status reports per day to website.

Power Supply:

- Self contained battery good for 5 years.

Additional Features:

- GPS tracking

LED Status Indicators

- Number of LEDs: 4

L-Band RF

- Antenna: Internal ceramic patch

Satellite Transmitter Battery

- Battery Type: Long life lithium custom battery pack.
- Battery Life: 5 - 7 years depending on transmit activity & temperature.

Input Module Battery

- Battery Type: Long life lithium AA (Tadiran # TL2100/S).
- Battery Life: 5 - 7 years depending on temperature

Environmental

- Operating Temperature:
  Normal
  -22° to 140°F
  (-30° to 60°C) ,
  With battery life impact
  -40° to 185°F
  (-40° to 85°C)

Physical

- Satellite Transmitter Dimensions: 9.25”l x 6.25”w x 1.0”h
- Satellite Transmitter Weight: 1.6 lbs.

Satellite Enclosure Specifications: NEMA 4x, SAEJ1455 compliant

Input Module Enclosure Dimensions: 9.50”l x 7.32”w x 4.96”h

Input Module Enclosure Weight: 4 lbs.

Input Module Enclosure Specifications: NEMA 4X

2.8K Temperature Sensor

Description

The 2.8K Remote Temperature sensor enables monitoring temperatures at a location away from a Sensaphone unit. It will measure and report the exact temperature back to the Sensaphone unit to which it is attached. The Sensaphone can be programmed to trigger an alarm when conditions exceed the set high or low temperature limits. It may be mounted anywhere air temperatures need to be measured, however this model is recommended to be located in clean, dry environment. For outdoor use model FGD-0101 is recommended.

Specifications

Accuracy:
+/- 1°F

Dimensions:
2.5" x .75" x .75"
35mm x 19mm x 19mm

Compatibility:
400, 800, 1400, 1800, 2800, 2000, WEB600, Express II and CELL682.

Temp Range:
400, 800:
-20° to 150°F (-30° to 65°C)

1400, 1800, 2800, WEB600:
-40° to 115°F (-40° to 57°C)

2000:
-40° to 124°F (-40° to 51°C)

Express II:
-40° to 150°F (-40° to 65°C)

*Specifications subject to change without notice

Package Contents

(1) Temperature sensor

(1) Mounting hardware

(1) Installation instructions

2.8K Temperature Sensor FGD-0100

2.8K Weatherproof Temperature Sensor

Description

The 2.8K Weatherproof Remote Temperature sensor enables monitoring temperatures at a location away from a Sensaphone unit. It will measure and report the exact temperature back to the Sensaphone unit to which it is attached. The Sensaphone can be programmed to trigger an alarm when conditions exceed the set high or low temperature limits. It is suitable for use in wet, dirty environments. Available with NIST temperature certification.

Specifications

Accuracy:
+/- 1°F

Compatibility:
400, 800, 1400, 1800, 2800, 2000, WEB600, Express II, and CELL682

Temp Range:
400, 800:
-20° to 150°F (-30° to 65°C)

1400, 1800, 2800, WEB600:
-109° to 115°F (-85° to 57°C)

2000:
-125° to 124°F (-87° to 51°C)

Express II:
-85° to 200°F (-65° to 93°C)

CELL682:
-100° to 124°F (-80° to 55°C)

*Specifications subject to change without notice

Package Contents

(1) Temperature sensor

(1) 12' wire

(1) Installation instructions

(1) Mounting Hardware

2.8K Remote Weatherproof Temperature Sensor FGD-0101

2.8K Remote Weatherproof Temperature Sensor w/ NIST Certification FGD-0101–NIST

2.8K Temperature Sensor with Glass Bead Vial

Description

The FGD-0107 is ideal for cold storage temperature monitoring. The glass bead filled vial will buffer any momentary fluctuations that may cause a preliminary alarm dial out, such as defrost cycles, opening of doors, and fans circulating air. The glass beads will slow the response time of the sensor allowing normal daily operations to occur without having an alarm initiated. This is a highly recommended sensor for every cold storage application.

Specifications

Accuracy:
±1°C (±1.8°F)

Compatibility:
1400, 1800, 2800, 2000, Express II, WEB600 and CELL682.

Temp Range:
400, 800:
-20° to 150°F (-30° to 65°C)

1400, 1800, 2800, WEB600:
-109° to 115°F (-85° to 57°C)

2000:
-125° to 124°F (-87° to 51°C)

Express II:
-85° to 200°F (-65° to 93°C)

CELL682:
-100° to 124°F (-80° to 55°C)

*Specifications subject to change without notice

Package Contents

(1) Temperature sensor with glass bead vial

(1) 12' wire

(1) Installation instructions

2.8K Temperature Sensor with Glass Bead Vial FGD-0107

2.8K Temperature Sensor with Glass Bead Vial w/NIST Certification FGD-0107-NIST

10K Remote Weatherproof Temperature Sensor

Description

The 10K Weatherproof Remote Temperature sensor enables monitoring temperatures at a location away from a Sensaphone unit. It will measure and report the exact temperature back to the Sensaphone unit to which it is attached. The Sensaphone can be programmed to trigger an alarm when conditions exceed the set high or low temperature limits. It may be mounted anywhere air temperatures need to be measured and is suitable for use in wet, dirty environments.

Specifications

Accuracy:
+/- 1°F

Compatibility:
1400, 1800, 2800, 2000, WEB600, Express II, and CELL682

Temp Range:
1400, 1800, 2800, WEB600:
-87° to 168°F (-66° to 76°C)

2000:
-90° to 200°F (-68° to 93°C)

Express II:
-80° to 200°F (-62° to 93°C)

SCADA 3000:
-35° to 205°F (-37° to 97°C)

CELL682:
-60° to 175°F (-51° to 79°C)

*Specifications subject to change without notice

Package Contents

(1) Temperature sensor

(1) 12' wire

(1) Installation instructions

(1) Mounting Hardware

10K Remote Weatherproof Temperature Sensor FGD-0102

Temp Alert

Description

The Temp Alert can be used with all Sensaphone models to monitor air temperature from -30° to 130°F (-34° to 54°C). Simply determine the acceptable temperature limits for your application by adjusting the temperature limit arms. When the temperature exceeds the setting, the sensor triggers an alarm. The temp alert can be mounted to any wall or vertical surface. Multiple temp alerts may be wired in parallel to a single input. It requires no power for operation and mounts easily on any flat surface.

Specifications

Temperature Range:
-30° to 130°F (-34° to 54°C)

Dimensions:
6.25” x 3.25” x 2”

Weight:
6 ounces

Accuracy:
± 3°F

Housing:
ABS Plastic

Compatibility:
All Sensaphone models

*Specifications subject to change without notice

Package Contents

(1) Temperature alert

(1) Wall mounting kit

10K Indoor Decorator Zone Temperature Sensor

Description

The 10K indoor decorator zone temperature sensor offers precision room temperature sensing in an attractive wall–mounted enclosure. Accurate to 0.36°F (0.2°C) with a sensing range of 35° to 140°F. The indoor decorator comes in a beige plastic enclosure, with a tan metal face plate. The sensor is designed to be wall–mounted indoors where appearance is important. The separate base plate may be mounted directly to the drywall or on a standard electrical outlet box without adapters. The cover is secured with tamper resistant hex screws.

Specifications

Temperature Range:
35° to 140°F (2° to 60°C)

Dimensions:
4.5” x 3.25” x 1.25”
114mm x 83mm x 32mm

Accuracy:
± 0.36°F (0.2°C)

Housing:
Beige plastic with tan metal faceplate

Compatibility:
1400, 1800, 2800, 2000, Express II, SCADA 3000, WEB600, and CELL682.

*Specifications subject to change without notice

Package Contents

(1) Temperature sensor

(1) Wall mounting kit

(1) Installation instructions

SENSAPHONE
Monitoring Sensor

General Accessories

Accessories & Sensors

10K Outdoor Air Weatherproof Temperature Sensor

Description

The 10K Outdoor Air Weatherproof Temperature sensor is a sensitive temperature element with a stainless steel tube sheathe. It is mounted inside a ventilated, treated weather–resistant PVC shield to minimize radiant energy effects and mounted on a weatherproof outlet box for easy outdoor installation. Accurate to ± 0.36°F (0.2°C) with a sensing range of -30° to 140°F. Eight feet of 24AWG wire is included.

Specifications

Temperature Range:
-30° to 140°F
-34° to 60°C

Dimensions:
9” x 3” x 2”
228mm x 76mm x 51

Accuracy:
± 0.36°F

Compatibility:
1400, 1800, 2800, 2000, Express II, SCADA 3000, WEB600, CELL682

*Specifications subject to change without notice

Package Contents

(1) Temperature sensor

(1) 8’ Wire

10K Immersion Temperature Sensor

Description

The 10K Immersion temperature sensor is a waterproof temperature sensor for measuring the temperature of fluids inside a pipe. It’s constructed of brass WEL-B thermowell (which screws into a customer-supplied 0.5” NPT saddle or Thredolet® fitting in a pipe). It fits into a thermowell via a brass 0.125” NPT fitting. Accurate to ± 0.36°F (0.2°C) and has a sensing range of 10° to 230°F. It also includes 8’ of 24AWG wire.

Specifications

Temperature Range:
10° to 230°F (-12° to 110°C)

Dimensions:
Thermowell:
5.125” (130mm)
Sensor in well:
6.5” (165mm)

Accuracy:
± .36°F (.2°C)

Compatibility:
1400, 1800, 2800, 2000, Express II, SCADA 3000, WEB600, CELL682

*Specifications subject to change without notice

Package Contents

(1) 304 stainless steel probe

(1) Brass WEL-B thermowell

(1) 8’ Wire

Humidistat

Description

The Humidistat can be used with all Sensaphone models to detect a high or low humidity level. The device will cause your Sensaphone to activate an alarm when the humidity level reaches a set threshold. Made from high impact plastic with a brushed gold-tone dial plate and a beige cover. A nylon sensing element provides long life and accurate humidity control. With a range of 10% to 60% RH level, the sensor causes an alarm when the humidity exceeds or falls below the set limit. Multiple sensors may be wired to a single input.

Specifications

Operating Temperature Range:
32° to 95°F (0° to 35°C)

Humidity:
10 to 60% RH

Housing:
Beige plastic

Compatibility:
All Sensaphone models

*Specifications subject to change without notice

Package Contents

(1) Humidistat

(1) Wall mounting kit

(1) Installation instructions

Humidistat FGD-0027

Humidity Transmitter (4-20mA)

Description

A space mount, low profile humidity transducer. Transmits actual humidity levels to the Sensaphone for programmable high and low alarm limits. The device can be used with any Sensaphone that supports 4-20mA inputs. The 24V DC power supply (FGD-0053) is required unless the transmitter is used with the SCADA 3000 or Express II.

Specifications

Operating Temperature:
-10° to 160°F (-23° to 71°C)

Operating RH:
0 to 100% RH

Accuracy:
± 3% from 20% to 95%

Dimensions:
2.75” x 4.5” x 1.125”
70mm x 114mm x 29mm

Compatibility:
1400, 1800, 2800, 2000, Express II, SCADA 3000, WEB600 and CELL682.

*Specifications subject to change without notice

Package Contents

(1) Humidity sensor

(1) Wall mounting kit

(1) Operating instructions

Humidity Transmitter FGD-0052

24V Power Supply for 4-20mA Sensors

Description

4-20mA transducers require power to operate. Some of our Sensaphone products, like the SCADA 3000 and Express II, provide 24 VDC power specifically for this purpose. When using a 4-20mA transducer with any other Sensaphone product, an external power supply will be required. Two versions are available, one providing standard 24 VDC power, and another that also provides battery backup in case of a power outage. These can be used with any of the Sensaphone 4-20mA transducers, FGD-0052, FGD-0068, FGD-0065, and FGD-0066, as well as any third party 4-20mA transducer.

Specifications

Size:
7.5” x 3.625”
190mm x 92mm

Weight:
4.9oz (.14 kg)

Battery Backup Duration:
Up to 8 hours

Power:
24V/40mA will power two devices.

*Specifications subject to change without notice

Package Contents

(4) AA Rechargeable batteries

24V Power Supply FGD-0053

24V Power Supply with Battery Backup FGD-0070

PowerOut Alert Model PS-110

Description

A compact power outage monitoring device to detect power failures. Easily plugs into any 110 VAC receptacle outlet for operation. Works with all Sensaphone products. Comes with 15 feet of wire.

Specifications

Dimensions:
2.25” x 3” x 2”
57mm x 76mm x 50mm

Weight:
9.3 oz (.26 kg)

Application:
Any standard 2-3 blade 110 volt outlet

Operating Temperature:
40° to 100°F (4° to 37°C)

Contact Ratings:
.5 Amp @ 30V

Time Delay:
3 to 8 minutes

Compatibility:
All Sensaphone models

*Specifications subject to change without notice

Package Contents

(1) PowerOut Alert Model PS-110

(1) Installation instructions

PowerOut Alert Model PS-110 . . . . . FGD-0054

Zone Water Detector

Description

The Sensaphone zone water detector is for detecting the presence of water on a floor or in a false ceiling. It comes with 10' of WaterRope capable of covering a larger area than the FGD-0013 water sensor. Up to ten WaterRopes can be cascaded from a single sensor for even greater coverage. Works with all Sensaphone products and operates on two AA batteries (installed).

Specifications

Normality:
Normally Closed

Number per input:
5

Dimensions:
5.48" x 3.3" x 1.35"

Housing:
Black plastic

Compatibility:
All Sensaphone models

*Specifications subject to change without notice

Package Contents

(1) Zone water detector

(1) 10' of WaterRope

(5) Adhesive cable clamps

(1) Wall mounting kit

(4) Rubber feet

Zone Water Detector FGD-0056

Spot Water Detector

Description

The water detection sensor can be used with all Sensaphone models to detect the presence of water on a horizontal surface. Independently powered by internal lithium batteries. The batteries should last for approximately 3-5 years. When the batteries start to run down, the sensor will automatically cause an alarm dial out when no water is present. Multiple sensors can be wired in series to a single input.

Specifications

Normality:
Normally closed

Number per input:
Multiple, wired in series

Dimensions:
2.25" x 1.125" x 3.625"
57mm x 28mm x 92mm

Housing:
Black Plastic

Compatibility:
All Sensaphone models

*Specifications subject to change without notice

Package Contents

(1) Spot water detector

(1) Installation instructions

(1) 8' wire

Spot Water Detector FGD-0013

Smoke Detector

Description

The Smoke Detector with built-in relay utilizes a photoelectric sensing method and is designed for use in commercial and residential applications. The device requires hard–wired 120VAC 60Hz power (220VAC 50 Hz optional). The detector features two sets of dry alarm contacts: one form-A SPST and one form-C SPDT. The detector has tandem interconnect capability allowing up to 6 devices to be connected together. A 90dBA audible horn is included. Also available with optional battery backup or in 220V. The detector can be used with all Sensaphone models.

Specifications

Dimensions:
6.5" diameter x 2.625"
165mm x 67mm

Weight:
6.5 ounces (3kg)

Housing:
White plastic

Operating Temp Range:
40° to 100°F (4° to 37°C)

Compatibility:
All Sensaphone models

*Specifications subject to change without notice

Package Contents

(1) Smoke detector

(1) Wiring harness

(1) Mounting template

(1) Instruction manual

Smoke Detector 110V FGD-0049
Smoke Detector 110V w/battery backup. FGD-0049-B
Smoke Detector 220V FGD-0049-220V

Infra–Red Motion Detector

Description

The passive infra-red motion detector can be used with all Sensaphone models to monitor the movement of warm bodies in a specific area. It will cause an alarm if motion is detected. Its range of detection covers approximately forty feet of area. Multiple sensors can be wired in series to a single output.

Specifications

Dimensions:
4" x 6" x 1.5"
101mm x 152mm x 38mm

Housing:
White plastic

Normality:
Normally closed

Range:
Approximately 40'

Battery Life:
3-5 years

Compatibility:
All Sensaphone models

*Specifications subject to change without notice

Package Contents

(1) Infra–Red motion detector

(2) AA batteries

(1) Installation instructions

Infra–Red Motion Detector FGD-0007

Magnetic Reed Switch

Description

The magnetic reed switch may be used with all Sensaphone models to detect any unauthorized entry or intrusion. They are usually installed on doors and windows to detect their opening and closing. Several magnetic reed switches may be wired in series.

Specifications

Dimensions:
Part w/ screw terminals:
2.5" x .75" x .5"
63mm x 19mm x 13mm
Part w/ magnet:
2.5 " x .75" x .625"
63mm x 19mm x 16mm

Housing:
White plastic

Compatibility:
All Sensaphone models

*Specifications subject to change without notice

Package Contents

(1) Sensor
(1) Spacer
(1) Sensor casing
(1) Magnet
(4) Mounting screws
(1) Installation instructions

Magnetic Reed Switch FGD-0006

Dual Setback Thermostat

Description

For use exclusively with the Sensaphone 400 and 800, this is a "setback" thermostat with an LCD readout. It lets you enter the desired setpoint for both your "away" and "home" temperatures. A control signal, sent from your Sensaphone, switches between these two settings.

Specifications

Power Supply:
2 AA alkaline batteries

Connection:
2, 3, 4 or 5 wires

Maximum Load:
1.5 A / 30 VAC per output

Number of programs:
4 programs per day, 28 programs

Heat setting range:
40° to 85°F (5° to 30°C)

A/C setting range:
60° to 105°F (16° to 40°C)

Compatibility:
400 and 800

*Specifications subject to change without notice

Package Contents

(1) Dual setback thermostat
(1) Instruction booklet
(1) Hardware mounting kit

Dual Setback Thermostat FGD-0064
12VDC Power Supply for Dual Setback Thermostat. XFR-0024

Surge Suppressor for both Power and Phone

Description

The Traveler surge suppressor offers complete AC and phone line surge suppression for your Sensaphone and other electronic devices. The compact housing weighs less than 4 ounces. The retractable plug prevents scratching of expensive portable electronics. A set of RJ11 telephone line suppression jacks protect dialup and voice/modem lines. The suppressor offers 2 total outlets in a space saving direct plug-in format and diagnostic LEDs to warn of wiring problems and suppressor damage. $50,000 Ultimate Lifetime Insurance (USA & Canada Only).

Specifications

Voltage Compatibility:
120 VAC

Output capacity:
15 Amps

AC Suppression joule rating:
1050 joules

Diagnostic LEDs:
Two built in LEDs confirm suppressor "protection present" and outlet "grounded" status

Clamping voltage:
150V

Unit Dimensions:
3.5" x 2.5" x 1.75"
89mm x 63mm x 44mm

*Specifications subject to change without notice

Package Contents

(1) Surge suppressor
(1) 6-ft telephone cord
(1) Instruction manual with warranty information

Surge Suppressor FGD-0067

Carbon Dioxide (CO^2)Sensor

Description

The Sensaphone Carbon Dioxide sensor will allow you to monitor levels of Carbon Dioxide from 0-2,000ppm with any Sensaphone that will accept a 4-20mA input signal. The sensor will need a 24VDC power supply to operate (Part # FGD-0053)

Specifications

CO^2 Range:
0-2,000 PPM

Accuracy:
± 50 PPM

Operating Temp Range:
32° to 122°F (0° to 50°C)

Response Time:
2 Minutes for 90% step change

Housing:
White plastic

Compatibility:
1400, 1800, 2000, 2800, Express II, SCADA 3000 WEB600 and CELL682.

*Specifications subject to change without notice

Package Contents

(1) Carbon dioxide sensor
(1) Installation instructions

Carbon Dioxide Sensor FGD-0068

Accessories & Sensors

Carbon Monoxide (CO) Sensor

Description

Carbon Monoxide is a highly toxic gas that has no color or odor. The Sensaphone Carbon Monoxide sensor will allow you to monitor CO levels from 0-300 ppm with any Sensaphone that will accept a 4-20mA input signal. The 1" x .5" LCD displays the PPM and menu parameters. The sensor will require a 24VDC power supply to operate (Part # FGD-0053).

Specifications

CO Range:
0-300 PPM

Accuracy:
± 5% PPM

Operating Temp Range:
-4° to 122°F (-20° to 50°C)

Coverage Area:
50' radius

Housing:
Black plastic

Dimensions:
7.2" x 4.9" x 1.7"

Compatibility:
1400, 1800, 2000, 2800, Express II, SCADA 3000, WEB600 and CELL682

*Specifications subject to change without notice

Package Contents
(1) CO sensor
(1) Installation instructions

Carbon Monoxide Sensor FGD-0065

Air Quality Sensor

Description

The Sensaphone Indoor Air Quality sensor will allow monitoring of levels of pollution from 0–100% with any Sensaphone that will accept a 4-20mA input signal. The Air Quality sensor uses a tin dioxide semiconductor sensor to detect oxidizable gases and is specially designed to have high sensitivity to gaseous organic materials which are components of indoor air pollutants. These air contaminants include cigarette smoke, cooking exhaust, automobile exhaust, solvents and many others. Requires a 24VDC power supply. (Part # FGD-0053)

Specifications

Measurement:
Solid State TGS VOC sensor

Sample Method:
Flow through

Operating Temp Range:
32° to 122°F (0° to 50°C)

Housing:
White plastic

Dimensions:
2.8" x 4.7" x 1.25"
71mm x 119mm x 32mm

Compatibility:
1400, 1800, 2800, 2000, Express II, SCADA 3000, WEB600 and CELL682

*Specifications subject to change without notice

Package Contents
(1) Air quality sensor
(1) Installation instructions

Air Quality Sensor FGD-0066

Multi–Point Wireless I/O

Description

The multi-point wireless I/O system is ideal if you need to connect one or two dry contacts and/or a 4-20mA transducer to a Sensaphone that is too far (or too expensive) to run cable. The system will replicate these sensors up to a distance of 600' indoors or up to 4 miles line of site (flat terrain, raised antennas). The system includes a matched 1 Watt 900MHz transmitter and receiver. Two 24V power supplies and omni-directional antennas are included. Built-in leds indicate RF link and dry contact status.

Specifications

Inputs transmitter:
Analog: 4mA - 20mA

Number of Digital Inputs: 2

Voltage Range: 5-30V

Analog Output (receiver)
4-20mA, 750Ω max

Digital output (receiver)
Contact Type: 2 NO/NC

Power Supply
Supply Voltage:12V DC - 30V DC

General:
Dimensions:
3.89" x .68" x 4.5"
Mounting: DIN–rail mount
UL, USA / Canada: Class I, Div. 2, Groups A, B, C, D

Compatibility:
1400, 1800, 2800, 2000, Express II SCADA 3000, WEB600 and CELL682.

*Specifications subject to change without notice

Package Contents
(1) Transmitter
(1) Receiver
(2) 24VDC power supplies
(2) Antennas
(1) Instruction booklet

Multi–Point Wireless I/O FGD-0205

J Type Thermocouple / 4-20mA Converter

Description

The thermocouple to 4-20mA converter is useful when monitoring very high or very low temperatures that can not be monitored with a standard Sensaphone temperature sensor. Each thermocouple input module provides a single channel of thermocouple input which is filtered, isolated, amplified, linearized and converted to a 4-20mA output. Isolation is provided by transformer coupling, using a proprietary technique to suppress transmission of common mode spikes or surges. The modules have excellent stability over time.

Specifications

Thermocouple Type:
J (not included)

Output Range:
4 to 20mA

Input Temp Range:
-148° to 572°F
-100° to 300°C

Mechanical Format:
DIN Rail (Mounting)

Accuracy:
0.08%

Supply Voltage:
15 to 30V DC
(+ 24V DC Nom)

Dimensions:
2.95" x .89" x 4.13"
75mm x 23mm x 105mm

Compatibility:
1400, 1800, 2800, 2000, Express II, SCADA 3000, WEB600, CELL682

Package Contents
(1) J Type Thermocouple Converter
(1) Instruction Booklet

*Specifications subject to change without notice

J Type Thermocouple / 4–20mA Converter FGD-0220

USB to DB–9 RS–232 Serial Converter

Description

- Configure your Sensaphone through serial communication using newer PCs not equipped with a serial port.
- Provides an additional serial port for situations where all existing serial ports are in use.
- Plug & Play operation through USB interface.
- Compatible with Windows 98/ME/2K/XP/Vista.
- Indicator LEDs for Power, Receive, and Transmit operations.

Float Switch

Description

The FGD-0222 float switch is a plastic side mounted float switch that is cost effective for level control applications in small tanks where it is more convenient to install a level switch through the sidewall of the tank. This style float switch can be rotated for Normally Open or Normally Closed operation. Combine two switches at different levels for high and low level or pump control or alarming.

Specifications

Operating Temperature Range:
-10° to 80°F (-23° to 26°C)

Contact Rating:
50W

Max Switch Volt:
100VDC

Housing:
Black plastic

Compatibility:
All Sensaphone products

*Specifications subject to change without notice

Package Contents

(1) Float switch

SENSAPHONE
Monitoring Sensor
General Accessories

Accessories & Sensors

Serial–to–Ethernet Device Server

Description

The Serial-to-Ethernet Device Server allows you to access your Sensaphone 2000 or SCADA 3000 anywhere on a local LAN or the Internet. Simply connect the device to the serial port on your Sensaphone and connect the Ethernet jack to your network. The software included with the device server will route your computer's serial port to the network-connected device server, thus establishing a fast, direct connection to your Sensaphone.

Specifications

Operating Temp Range:
32° to 131°F (0° to 55°C)

Humidity:
5–95% RH

Warranty:
5 year

Ethernet:
10/100 Mbps, RJ45

Dimensions:
1.97" x 3.15" x .87"
50mm x 80mm x 22mm

Utilities:
NPort Administrator for Windows 95/98/ME/ NT/2000/XP/2003/Vista

OS Driver Support:
Windows 95/98/ME/ NT/2000/XP/2003/Vista/ Win7

*Specifications subject to change without notice

Package Contents

(1) Moxa NPort 5110

(1) Installation guide

(1) Software CD

(1) 12V power supply

(4) Rubber stick on feet

Bluetooth Cell Phone Interface

Description

The XLink allows your Sensaphone to dial and receive calls using any cell phone with Bluetooth technology. By using the XLink you can provide telephone service to your Sensaphone by locating a cell phone next to the device. The XLink will send all incoming calls to the Sensaphone and when the Sensaphone needs to dial out the call will be seamlessly completed through the cell phone. The XLink is a wireless (Bluetooth) link between your Sensaphone and a cellular phone. Perfect for access where a land line simply isn't available.

Specifications

Bluetooth:
Bluetooth® v2.0
Hands–free profile
Frequency 2.4GHz

Operating Temperature:
32° to 104°F
0° to 40°C

Physical Size:
4.5" x 1.8" x 4.4"
114mm x 46mm x 112mm

Compatibility:
400, 800, 1400, 1800, 2800, and Express II

*Specifications subject to change without notice

Package Contents

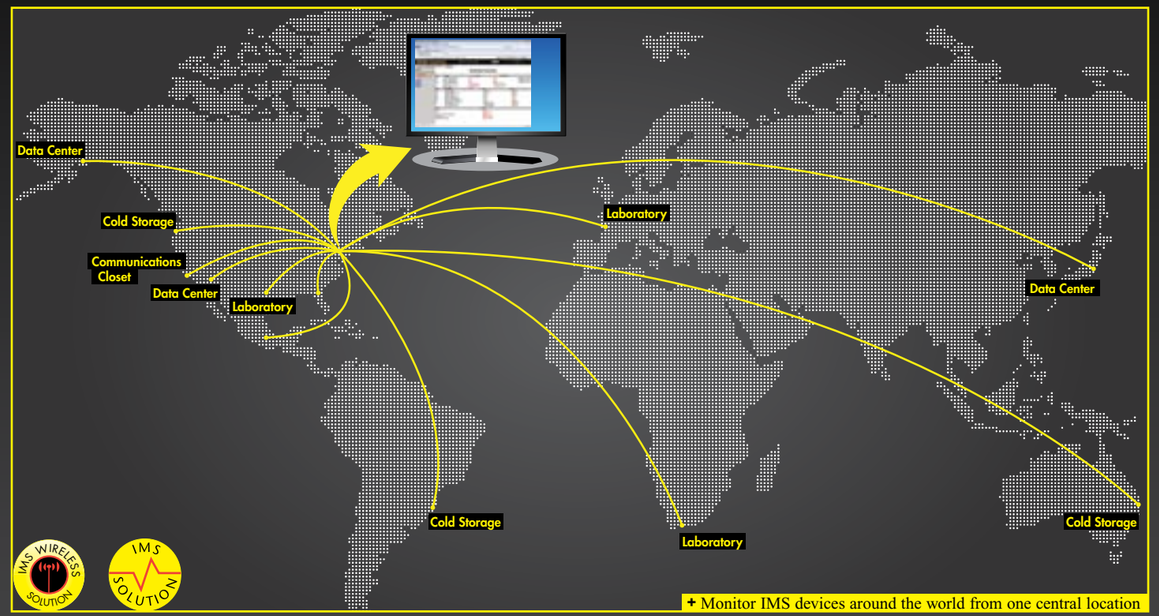
(1) Bluetooth cell phone interface

(1) Power supply

(1) 3' telephone wire

(1) Operating instructions

IMS Solutions



+ Monitor IMS devices around the world from one central location

The Sensaphone IMS family allows monitoring of potential environmental threats in many of the same ways as traditional Sensaphone products. They can monitor for conditions such as temperature and humidity range, the presence of water, power failure, and physical security with both hard–wired and wireless sensors.

The IMS solutions are designed with many features that go beyond the traditional line of Sensaphone products. One of the biggest advantages is the ability to provide web based monitoring while still offering a traditional phone line. Users can monitor a single room or multiple rooms spread out over a campus, city, state, country or continents with the same software and still be assured they will receive alarms even if the network connection is lost. The IMS solution is built to be expandable up to 32 units – with eight sensors monitored by each unit, up to 256 inputs can be monitored from one computer. If that's not enough, multiple networks can be managed within the same software.

A full line of IMS specific sensors provide monitoring for a full range of environmental conditions. The sensors require no tools to install, simply plug them in using a standard RJ-45 connection and the IMS unit begins monitoring. With the addition of a Wireless Node, sensors can be monitored without running cables. Simply turn the wireless sensor on and place it in the location it will be monitoring.

At the center of any IMS solution is the software. All units come with the ConsoleView software which allows IMS users to program and manage their network. It allows users to achieve maximum potential from their system by setting detailed parameters for sensors, alarms and more. A multi–site, multi–user software license is included with the purchase so there is no worry about additional licensing costs.

In addition to all of the other advanced features, the IMS solutions offer features specific to monitoring a data center or computer room. The solution provides integrated monitoring of network connectivity and server operation, provides a full event–history and trending and the units can be mounted directly into a server rack.

Even though the IMS solution was designed with the IT professional in mind, it is finding useful applications in many medical, pharmaceutical, and food industries that have a need for monitoring several locations using one simple solution.

✔ Reliability

- Supervised Sensors

  All of the IMS sensors are continuously monitored by the IMS parent unit. If they become disconnected an alert will be sent.

- Powered Sensors

  All IMS sensors are powered through their connection to the IMS parent unit.

- Redundant communication paths with "out of band" alarm notification.

  Receive alarm notification via several different channels; e-mail, phone, and fax.

✔ Ease of Use

- Integrated Web Server
- Plug and play sensors with automatic identification and setup

  All IMS sensors are connected using standard Cat–5 cables. As soon as they're plugged in, they become active and start working.

- Convenient Cat–5 cabling for sensors

  The use of Cat–5 jacks for sensor inputs allows the use of existing structured cabling to connect to connect remote sensors.

✔ Powerful Features

- Data Logging

  All IMS systems gather a time–stamped collection of input values that can be used to view and graph information.

- Detailed Event History

  The eventlog contains time–stamped messages that describe activities performed by the unit such as alarm detection, user logins, telephone calls and alarm acknowledgement.

- Network Management Integration

  The IMS system helps maintain, monitor, expedite and control conditions that effect both large and small networks.

- Video integration with alarm triggering image capture

  Alarms can be sent with an image of the condition that tripped that alarm.

IMS-1000 – The Single Room Solution

The IMS-1000 system is the newest addition to the Sensaphone IMS series. It provides effective infrastructure monitoring and alarm notification for a single location. Up to eight external sensors can be connected to the IMS-1000 to monitor a variety of environmental conditions. TCP/IP port service monitoring is also provided for up to 16 network devices or port services. An alarm condition is generated whenever any environmental sensor goes out of range, or when any network port service stops responding.

The IMS-1000 will then initiate its alarm notification process following the programmed list of personnel to be notified. E–mails are sent describing the alarm condition. If network cameras are installed, the e–mails will contain one or more attached images captured from the video camera. SNMP traps can also be sent to network management systems.

An internal telephone modem is available as an option to the IMS-1000 product. This feature provides additional options for alarm delivery. Custom messages can be recorded and stored in the 1000, and voice phone calls can be made to announce alarm conditions. In addition to the convenience of the voice phone call, the phone modem also provides an alarm delivery path independent of the computer network. In the case of network failures, or e-mail servers going offline, the phone call may be the only path available to properly notify the appropriate personnel.

The IMS-1000 is designed for high reliability with no moving parts. It is completely standalone with its own internal battery backup system. All programming and status information are available through its internal web server. In addition to the web server, the IMS-1000 is fully SNMP manageable. The IMS-1000 solution can effectively monitor the most critical conditions in any server room or data center.

Quick View

Built In	Power Failure
Inputs	Eight
Outputs	One Relay
Notification	E–mail, SNMP trap, and text messages are standard. Voice phone call and fax with phone option.
Special Features	Live webserver, rack mount, ethernet with phone backup, IP monitoring

The built–in Webpage makes monitoring any application effortless with an intuitive user interface.

IMS-4000
The Expandable Enterprise Solution

For larger monitoring requirements with multiple locations, the IMS-4000 Enterprise Solution can expand and grow. The IMS-4000 Host performs the same monitoring functions as the IMS-1000, but with the ability to monitor multiple locations within a facility, county, or country. The key to this distributed monitoring is the addition of IMS-4000 Nodes. Each Node can also monitor up to 8 external IMS sensors, but it reports back to a Host through the network. Up to 31 IMS Nodes can report back to a single IMS Host. The IMS-4000 ConsoleView software package is included with each Host providing an enterprise view of up to 32 locations per Host. If there are more than 32 locations, multiple Host networks can be managed within the same Console View software package.

All environmental and IP alarms can be scheduled so that they are only monitored for alarms during certain hours, or certain days of the week. The alarm notification is more powerful with the phone modem and custom voice messages being standard features on the 4000. It can also provide alarm messages to fax machines and pagers. More notification flexibility comes with the addition of time scheduling for users, and even alarm grouping for different groups of users. The IMS-4000 will make sure that only the appropriate users will be notified for each alarm condition.

Controlling outlets is another feature that the IMS-4000 products can perform. Using the optional PowerGate products, outlets can be switched on or off by the network of Hosts and Nodes. Outlets can be controlled either manually, or even automatically in response to specific alarm conditions. Users can automatically reboot network equipment when it stops responding.

Up to 128 network cameras can be integrated into the IMS-4000 system. Multiple images can be viewed from the Console View software, and snapshots can be sent attached to e-mails when alarms occur. The IMS-4000 solution provides comprehensive monitoring for your complete enterprise.

Quick View

Built In	Power failure Sound level
Inputs	Eight per each host and node
Outputs	0 (optional powergate)
Notification	E–mail, SNMP trap, voice phone call, fax, text message, numeric pager.
Special Features	Live webserver, rack mount, expandable, ethernet with phone backup, IP monitoring

IMS Comparison Chart

	IMS-1000	IMS-4000
Enterprise Hardware Expansion		✓
Enterprise Software Console		✓
Power Failure Monitoring	✓	✓
Built–In Battery Backup	✓	✓
High Sound Level Alarm		✓
External Sensors	Up to 8	8 Per Host/Node, 256 Total
Automatic Sensor Identification and Setup	✓	✓
Sensor Supervision	✓	✓
Cat5 Wiring for Sensor Extensions	✓	✓
IP Monitoring	16 Devices or Servers	64 Per Host/Node, 2048 Total
Alarm Notification User Profiles	16	64
E–Mail Notification	✓	✓
Pager Notification	✓	✓
Voice Phone Call Notification	Optional	✓
Customizable Voice Messages	Optional	✓
Remote Listen–In Over Telephone		✓
SNMP Traps	✓	✓
SNMP Manageable	✓	✓
Built–In Web Server	✓	✓
Cameras	16 External	128 External
Camera Interface	One at a time	Enterprise Multi–View
Alarm Triggered Image Capture	✓	✓
Scheduling for Alarms and Notification		✓
User Grouping for Alarm Types		✓
Outlet Control		Optional
Built–In RAS Server		✓
Two–Way E–Mail Command Responder		✓
Data Logging and Event Logging	✓	✓
Software Pop–Up When Alarms Occur		✓

SENSAPHONE Monitoring Solution

Single Location
Web Based Monitoring

IMS–1000

The IMS-1000 is designed to be a comprehensive method of ensuring 100% up-time in many applications including computer systems. By monitoring all aspects of the application, including environmental conditions and network equipment, the system will keep you informed of the status of your infrastructure. Monitored conditions can include temperature levels, humidity levels, line voltage, leak detection, server response, UPS systems, and more. The IMS-1000 system allows the user to be notified immediately of any detected problems. Notification can occur via voice telephone call, pager, e-mail, fax or SNMP trap. An internal battery backup system insures that the unit will continue to run if main power fails.

Features

The IMS-1000 series of products includes the following key features:

- Eight sensor inputs to monitor environmental conditions and/or alarm contacts from other computer equipment such as UPS systems.
- 10/100BASE-T Ethernet port.
- Internal battery backup for uninterrupted performance.
- Compact design allows rack-mount, wall-mount, or tabletop installation.
- Embedded web page to program and manage your IMS-1000 system.

Package Contents

(1) IMS-1000

(1) AC adapter

(1) Telephone cable

(1) Rack mounting bracket & hardware

(1) Installation cd

(1) Solution manual

Description	Part Number
IMS-1000 Single Room Monitoring Solution	IMS-1001
IMS-1000 Single Room Monitoring Solution w/ Voice Modem	IMS-1002

SENSAPHONE
Monitoring Solution

Expandable Web Based Monitoring

IMS–4000

This one-of-a-kind solution will change the way you think about computer room and network monitoring. The system is designed to be a comprehensive method of ensuring 100% up-time of computer systems. By monitoring all aspects of your computer room, including environmental conditions and network equipment, the system will keep users informed of the status of their infrastructure. Monitored conditions can include temperature levels, humidity levels, line voltage, leak detection, server response, UPS systems, and more. The system allows the user to be notified immediately of any detected problems. Notification can occur via voice telephone call, pager, e-mail, fax or SNMP trap. An internal battery backup system insures that the unit will continue to run if main power fails. The system also includes the ability to remotely perform diagnostic tests via Touch-Tone commands or e-mail. And with the IMS-4000 PowerGate, you can also remotely reboot equipment.

Package Contents

(1) IMS-4000 host

(1) Serial cable

(1) Telephone cable

(1) Power cord

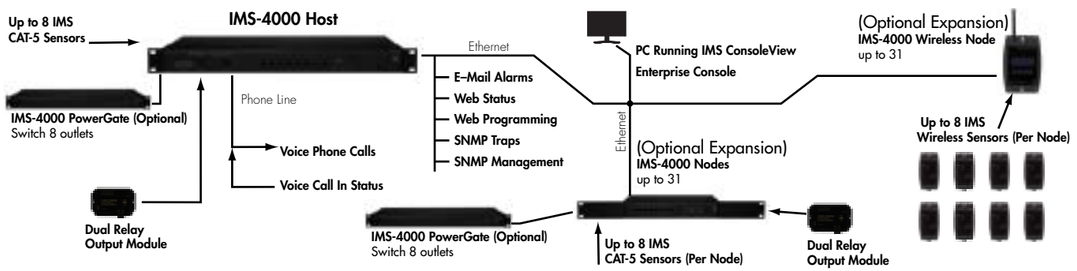
(1) Rack mounting bracket & hardware

(1) Software installation cd

(1) Instruction manual

Features

- Expandable architecture permitting up to thirty one IMS-4000 Nodes to be used with each IMS-4000 host.
- Eight sensor inputs per host to monitor environmental conditions and or alarm contacts from other computer equipment such as UPS systems.
- Internal battery backup for uninterrupted performance.
- Microphone for detecting audible alarms such as smoke detectors.
- ConsoleView software to program and manage your IMS-4000 system.


Up to 8 IMS CAT-5 Sensors
IMS-4000 Host
Ethernet
PC Running IMS ConsoleView Enterprise Console
(Optional Expansion) IMS-4000 Wireless Node up to 31
E–Mail Alarms
Web Status
Web Programming
SNMP Traps
SNMP Management
IMS-4000 PowerGate (Optional) Switch 8 outlets
Phone Line
Voice Phone Calls
Voice Call In Status
Ethernet
(Optional Expansion) IMS-4000 Nodes up to 31
Up to 8 IMS Wireless Sensors (Per Node)
Dual Relay Output Module
IMS-4000 PowerGate (Optional) Switch 8 outlets
Up to 8 IMS CAT-5 Sensors (Per Node)
Dual Relay Output Module

Description	Part Number
IMS 4000 Enterprise Host Unit.	IMS-4001

SENSAPHONE
Monitoring Accessory

IMS Accessories

DRY CONTACT NODE COMING SOON

IMS–4000 Node

Description

The IMS-4000 Node allows IMS-4000 users to expand their infrastructure and monitor additional inputs in locations away from the IMS-4000 Host. Up to thirty–one Nodes can be used with each IMS-4000 Host. Much like the Host, the Node can monitor eight inputs for environmental conditions and or alarm contacts from other computer equipment such as UPS systems. The Node connects to the Host via a RJ-45 10/100BASE-T Ethernet and is monitored via the ConsoleView software included with the Host.

Features

The IMS-4000 Node includes the following key features:

- Eight sensor inputs per Node to monitor environmental conditions and/or alarm contacts from other computer equipment such as UPS systems.
- 10/100BASE-T Ethernet port for inter-operation with other IMS-4000 equipment and network devices.
- RS-232 serial port for local configuration.
- Internal battery backup for uninterrupted performance.
- Microphone for detecting audible alarms such as smoke detectors.
- Compact design allows rack-mount, wall-mount, or tabletop installation.
- ConsoleView software to program and manage your IMS-4000 system.

Package Contents

(1) IMS-4000 node

(1) AC adapter

(1) Serial cable

(1) Rack mounting bracket & hardware

(1) Installation cd

(1) Solution manual

Description	Part Number
IMS-4000 Enterprise Monitoring Node Expansion Unit	IMS-4002
IMS-4000 International Node	IMS-4003

IMS Outlet Switching

IMS-4000 PowerGate

Description

The IMS-4000 PowerGate allows you to manually or automatically switch up to 8 electrical outlets from the IMS-4000 ConsoleView Software or the IMS-4000 web page. This gives you the ability to remotely turn-on, turn-off, or cycle power (reboot) remote equipment. You can also program the system to automatically control the power to a device based on an alarm condition. The PowerGate has eight LEDs on the front panel to indicate outlet status and a 15 Amp circuit breaker for safety. It can switch a total of up to 12 amps of current at 120VAC 60Hz (all outlets combined). The unit is made for rack mounting and fits in a 1 EIA rack space (17”w x 10”d x 1.75”h).

IMS-4000 PowerGate2

Description

The IMS-4000 PowerGate2 allows you to manually or automatically switch up to 8 electrical outlets from the IMS-4000 ConsoleView Software or the IMS-4000 web page. This gives you the ability to remotely turn-on, turn-off, or cycle power (reboot) remote equipment. You can also program the system to automatically control the power to a device based on an alarm condition. The PowerGate2 features individual power input circuits for each outlet thus giving you the ability to distribute the power load across multiple circuits. Two of the outlets can switch up to 10 amps (120VAC 60Hz) and the other six can switch up to 4 Amps (120VAC 60Hz). The unit is made for rack mounting with steel brackets and fits in a 1 EIA rack space (17”w x 12”d x 1.75”h).

Description	Part Number
IMS-4000 PowerGate	IMS-4301
IMS-4000 PowerGate2	IMS-4302

IMS Accessories

Dual Relay Output Module

Description

The IMS-4310 Dual Relay Output Module allows you to control two devices from any IMS-4000 Host or Node. Each output may be controlled either manually or automatically. Each output has the option of providing either a dry relay contact or 12VDC power. Two switches located inside the device select the output type.

Package Contents

(1) Dual Relay Output Module

(1) 12VDC Power Supply

(1) Instruction Manual

(1) Serial Cable

Specifications

Temperature:
32° to 122°F

Humidity:
5–90% RH

Number of Outputs:
2

Output Type:
Dry Contact or 12V Switched

Output Rating (12V DC Mode):
1.5 Amps total (both outputs combined)

Output Rating (Dry Contact Mode):
2 Amps @ 30VAC/VDC, max

Power Supply:
12VDC 2A Power Adapter.

Dimensions:
5.5” x 3.75”w x 1.5”h

Housing:
Black plastic

Compatibility:
IMS-4000, IMS-4000 Node,

**Specifications subject to change without notice*

Dual Relay Output Module IMS-4310

SENSAPHONE
Monitoring Sensor

General Accessories

Room Temperature Sensor

Description

The IMS-4810 temperature sensor is designed to connect to the Sensaphone IMS series product line and monitor indoor temperatures. The electrical connection between the sensor and IMS unit is made via RJ-45 patch cable (not included). The sensor may be mounted either on a wall or to a single-gang electrical box.

Specifications

Temperature Range:
5° to 122°F
(-15° to 50°C)

Humidity:
5 to 90% RH

Sensor type:
Solid state ic

Accuracy:
± 3°F

Connector:
RJ-45

Dimensions:
4.5" x 2.75" x 1.25"
110mm x 70mm x 30mm

Housing:
White plastic

Compatibility:
IMS-4000, IMS-4000 Node, IMS-1000

*Specifications subject to change without notice

Package Contents

(1) Temperature sensor

(2) Plastic drywall anchors

(2) #6 metal tapping screws

(1) 1/16" hex key

Room Temperature Sensor IMS-4810

SENSAPHONE
Monitoring Sensor

General Accessories

Mini Temperature Sensor

Description

The IMS-4812 Mini Temperature Sensor is designed to connect to the Sensaphone IMS series product line and monitor temperatures in tight locations (for example, inside equipment racks). The electrical connection between the sensor and IMS unit is made via the attached RJ-45 patch cable. The sensor may be secured inside equipment using double-sided tape (included) or with tie-wraps.

Specifications

Temperature Range:
5° to 140°F

Humidity:
5 to 90% RH

Sensor type:
Solid state ic

Accuracy:
± 3°F

Connector:
7' cable with RJ-45 plug

Housing:
Black plastic

Dimensions:
2.13" x 0.6" x 1.38"
54mm x 15mm x 35mm

Compatibility:
IMS-4000, IMS-4000 Node, IMS-1000

*Specifications subject to change without notice

Package Contents

(1) Temperature sensor

(1) Attached 7' patch cable

Double–sided tape

Mini Temperature Sensor IMS-4812

IMS Sensors & Accessories

Room Temperature Sensor with Display

Description

The IMS-4811 temperature sensor is designed to connect to the Sensaphone IMS series product line and monitor indoor temperatures. The electrical connection between the sensor and IMS unit is made via RJ-45 patch cable (not included). The sensor may be mounted either on a wall or to a single-gang electrical box.

Specifications

Temperature Range:
32° to 95°F
0° to 35°C

Humidity:
5 to 90% RH

Sensor type:
Solid state ic

Accuracy:
± 3 °F

Connector:
RJ-45

Housing:
White plastic

Dimensions:
4.75" x 2.875" x 1.875"
120mm x 73mm x 47cm

Compatibility:
IMS-4000, IMS-4000 Node, IMS-1000

*Specifications subject to change without notice

Package Contents

(1) Temperature sensor

(2) Plastic drywall anchors

(2) #6 Metal tapping screws

(1) 1⁄16" hex key

Room Temperature Sensor with Display (°F) IMS-4811

Room Temperature Sensor with Display (°C) IMS-4813

Ultra Low Temperature Sensor

Description

The IMS-4814 Ultra Low Temperature Sensor is designed to connect to the Sensaphone IMS product line and monitor temperatures in refrigerators or freezers. The electrical connection between the sensor and IMS unit is made via the attached RJ-45 patch cable. The sensor probe may be secured inside equipment using the included clamp or it may be hung using tie wraps. Do not install the black plastic enclosure inside of a refrigerator or freezer. It is available with an optional NIST temperature certification.

Specifications

Temp Range:
-122° to 53°F
(-86° to 12°C)

Humidity:
5–90% RH

Sensor type:
Sealed thermistor probe

Accuracy:
± 3°F

Connector:
7' Cable with RJ-45

Housing:
Black plastic

Compatibility:
IMS-4000, IMS-4000 Node, IMS-1000

*Specifications subject to change without notice

Package Contents

(1) Ultra low temperature sensor

(1) Attached 7' patch cable

(1) Attached 12' of cable with weatherproof probe

Ultra Low Temperature Sensor IMS-4814

Ultra Low Temperature Sensor w/NIST Certification IMS-4814-NIST

IMS Sensors & Accessories

General Accessories

Temperature Sensor with Glass Bead Vial

Description

The IMS-4815 Temperature Sensor is designed to connect to the Sensaphone IMS series product line. The glass bead filled vial will buffer any momentary fluctuations that may cause a preliminary alarm such as defrost cycles, opening of doors and fans circulating air. The glass beads will slow the response time of the sensor allowing normal daily operations to occur without having an alarm initiated. This is a highly recommended sensor for every cold storage application.

Specifications

Monitoring Temperature Range:
-122° to 53°F
(-86° to 12°C)

Humidity:
5 to 90% RH

Sensor type:
Sealed thermistor probe

Accuracy:
± 3°F

Connector:
7' cable with RJ-45 plug

Housing:
Black plastic

Dimensions:
2.13" x 0.6" x 1.38"
54mm x 15mm x 35mm

Compatibility:
IMS-4000, IMS-4000 Node, IMS-1000

*Specifications subject to change without notice

Package Contents

(1) Temperature sensor with glass bead vial

(1) Attached 7' patch cable

(1) Attached weatherproof probe with 12' of cable

Temperature Sensor with Glass Bead Vial IMS-4815

External Probe Temperature Sensor

Description

The IMS-4816 Temperature Sensor with External Probe is designed to connect to the Sensaphone IMS product line and monitor temperatures in areas where a traditional sensor won't fit. The electrical connection between the sensor and IMS unit is made via the attached RJ-45 patch cable. The sensor probe may be secured inside equipment using the included clamp or it may be hung using tie wraps. Do not install the black plastic enclosure inside of a refrigerator or freezer.

Specifications

Monitoring Temperature Range:
32° to 176°F
(0° to 80°C)

Humidity:
5–90% RH

Sensor type:
Sealed thermistor probe

Accuracy:
± 3°F

Connector:
7' Cable with RJ-45

Housing:
Black plastic

Compatibility:
IMS-4000, IMS-4000 Node, IMS-1000

*Specifications subject to change without notice

Package Contents

(1) Temperature sensor

(2) Plastic drywall anchors

(2) #6 metal tapping screws

(1) 1/16" hex key

External Probe Temperature Sensor IMS-4816

IMS Sensors & Accessories

General Accessories

Room Humidity Sensor

Description

The IMS-4820 humidity sensor is designed to connect to the Sensaphone IMS series product line and monitor indoor humidity levels. The electrical connection between the sensor and IMS unit is made via RJ-45 patch cable (not included). The sensor may be mounted either on a wall or to a single-gang electrical box.

Specifications

Operating Temperature Range:
32° to 122°F
(0° to 50°C)

Humidity:
0 to 100% RH

Accuracy:
± 5%

Connector:
RJ-45

Housing:
White plastic

Dimensions:
4.5" x 2.75" x 1.25"
114mm x 70mm x 32mm

Compatibility:
IMS-4000, IMS-4000 Node, IMS-1000

*Specifications subject to change without notice

Package Contents

(1) Humidity sensor

(2) Plastic drywall anchors

(2) #6 metal tapping screws

(1) 1/16" hex key

Room Humidity Sensor. IMS-4820

Room Humidity Sensor with Display

Description

The IMS-4821 humidity sensor is designed to connect to the Sensaphone IMS series product line and monitor indoor humidity. The electrical connection between the sensor and IMS unit is made via RJ-45 patch cable (not included). The sensor may be mounted either on a wall or to a single-gang electrical box. The IMS-4821 includes a LCD display for local readings.

Specifications

Operating Temperature Range:
32° to 158°F
(0° to 70°C)

Humidity:
5 to 95% RH

Accuracy:
± 3%

Connector:
RJ-45

Housing:
White plastic

Compatibility:
IMS-4000, IMS-4000 Node, IMS-1000

*Specifications subject to change without notice

Package Contents

(1) Humidity sensor

(2) Plastic drywall anchors

(2) #6 Metal tapping screws

(1) 1/16" hex key

Room Humidity Sensor with Display IMS-4821

IMS Sensors & Accessories

General Accessories

Water Detection Sensor

Description

The IMS-4830 Water Detection Sensor protects your server and equipment from damaging water leaks from malfunctioning HVAC systems, cafeteria accidents, or any general plumbing failures in your facilities. The IMS-4830 is powered directly by the IMS unit.

Specifications

Sensing Method:
Conductivity

Sensor:
10’ polymer core cable with 2 sensing wires

IMS Connection:
RJ-45

Housing:
Black plastic with mounting ears

*Specifications subject to change without notice

Package Contents

(1) Water detection sensor

(1) 10’ of WaterRope

(5) Adhesive cable clamps

(2) Plastic drywall anchors

(2) #6 metal tapping screws

Water Detection Sensor IMS-4830

General Accessories

15 Amp Current Sensor

Description

The IMS-4841 15A Current Sensor lets you monitor current consumption of a particular device or circuit anywhere within your infrastructure. It reports the actual current flow in the circuit, allowing you to know the current draw from devices such as server racks, UPS and generators. Any failed generator starts are reported to you immediately. The IMS-4841 can monitor current from 0-15 amps over a voltage range from 0–250VAC 50/60Hz. The sensor comes with IEC320 C14 inlet and C13 outlet connectors.

Specifications

Range:
0–15 Amps (0-250 VAC, 50/60 Hz)

Operating Temperature:
5° to 104°F (-15° to 40°C)

Accuracy:
± 2% (from 1-100% of full–scale output)

Power Connection:
IEC320-C14 inlet / IEC320-C13 outlet

IMS Connection:
RJ-45

Dimensions:
7.25’’ x 2.125’’ x 3.625’’
184mm x 54mm x 92mm

Housing:
Black plastic with mounting ears

Compatibility:
IMS-4000, IMS-4000 Node, IMS-1000

*Specifications subject to change without notice

Package Contents

(1) Current sensor

(1) Installation instructions

15 Amp Current Sensor IMS-4841

IMS Sensors & Accessories

Power Failure Sensor

Description

The IMS-4840 External Power Failure Sensor lets you monitor power anywhere within your infrastructure. It reports any loss of power and measures the current voltage in the circuit, allowing you to know the status of each server rack and even of your remote UPS. Any failed generator starts are reported to you immediately. The IMS-4840 can monitor voltage from 0–250VAC 50/60Hz.

Specifications

Range:
0 to 250 VAC, 50/60 Hz

Accuracy:
± 2%

Power Connection:
Universal IEC-320 power inlet

Housing:
Black plastic with mounting ears

Compatibility:
IMS-4000, IMS-4000 Node, IMS-1000

*Specifications subject to change without notice

Package Contents

(1) Power Sensor

(2) Plastic drywall anchors

(2) #6 Metal tapping screws

(4) Rubber feet

External Power Sensor IMS-4840

20 Amp Current Sensor

Description

The IMS-4842 20A Current Sensor lets you monitor current consumption of a particular device or circuit anywhere within your infrastructure. It reports the actual current flow in the circuit, allowing you to know the current draw from devices such as server racks, UPS and generators. Any failed generator starts are reported to you immediately. The IMS-4842 can monitor current from 0-20 Amps over a voltage range from 0–250VAC 50/60Hz. The sensor comes with IEC320 C20 inlet and C19 outlet connectors.

Specifications

Range:
0-20 Amps (0–250 VAC, 50/60 Hz)

Operating Temperature:
5° to 104°F (-15 to 40°C)

Accuracy:
± 2% (from 1-100% of full-scale output)

Power Connection:
IEC320-C20 inlet/ IEC320-C19 outlet

IMS Connection:
RJ–45

Dimensions:
7.25’’ x 2.125’’ x 3.625’’
184mm x 54mm x 92mm

Housing:
Black plastic with mounting ears

Compatibility:
IMS-4000, IMS-4000 Node, IMS-1000

*Specifications subject to change without notice

Package Contents

(1) Current sensor

(1) Installation instructions

20 Amp Current Sensor IMS-4842

IMS Sensors & Accessories

General Accessories

Dry Contact Bridge

Description

The IMS-4850 Dry Contact Bridge allows you to connect a dry contact alarm from any device to your IMS. The Dry Contact Bridge is compatible with Normally Open and Normally Closed contacts. The electrical connection between the sensor and IMS is made via RJ-45 patch cable (not included). The sensor may be mounted either on a wall or rest on the floor.

Specifications

Input:
Normally open or normally closed dry contact

Source/Sense Voltage:
14VDC

Source/Sense Current:
10mA

IMS Connection:
RJ-45

Operating Temperature Range:
32° to 122°F
(0° to 50°C)

Housing:
Black plastic

Compatibility:
IMS-4000, IMS-4000 Node, IMS-1000

*Specifications subject to change without notice

Package Contents

(1) Dry contact bridge

(2) Plastic drywall anchors

(2) #6 Metal tapping screws

(4) Rubber feet

Dry Contact Bridge IMS-4850

General Accessories

Magnetic Reed Switch

Description

The IMS-4860 Magnetic Reed Switch with bridge enables your IMS unit to detect if any unauthorized entry or intrusion has occurred. The bridge may be mounted either on a wall or rest on the floor. The switch is mounted to doors or windows you wish to monitor. The electrical connection between the bridge and IMS unit is made via RJ-45 patch cable.

Specifications

Bridge Input:
Normally Open or Normally Closed dry contact

Source/Sense Voltage:
14VDC

Source/Sense Current:
10mA

Cable/Connector:
7’ cable with RJ-45 plug

Operating Temperature:
32° to 122°F (0° to 50°C)

Housing:
Black plastic

Normality:
Normally Closed

*Specifications subject to change without notice

Package Contents

(1) Door switch and mounting hardware

(1) IMS-4860 bridge

(1) 25’ accessory wire

Magnetic Reed Switch IMS-4860

4-20mA Bridge

Description

The 4–20mA Bridge allows you to connect a 4–20mA transducer to your Sensaphone IMS unit. The 4–20mA Bridge features optical isolation between the input and the IMS unit, which ensures trouble-free operation and safety. The electrical connection between the bridge and IMS is made via RJ-45 patch cable (not included). The bridge may be mounted either on a wall or rest on the floor.

Specifications

Input:
4–20mA DC

Current Limit:
50mA

Input Impedance:
Variable (1000Ω @ 4mA, 260Ω @ 20mA)

Accuracy:
± 0.25%

IMS Connection:
RJ-45

Operating Temperature Range: 32° to 122°F
(0° to 50°C)

Housing:
Black plastic with mounting ears

Compatibility:
IMS-4000, IMS-4000 Node, IMS-1000

*Specifications subject to change without notice

Package Contents

(1) 4-20mA bridge

(2) Plastic drywall anchors

(2) #6 metal tapping screws

(4) Rubber Feet

4-20mA Bridge. IMS-4851

Passive Infrared Detection Sensor

Description

The IMS-4861 Passive Infrared Detection Sensor is a dual-element passive infrared intrusion detector for use in electronic security systems. It reduces false alarms by eliminating background noises and nuisance stimuli. The IMS-4861 employs variable pulse-count adjustment, thus making it adaptable for use both inside and outside of server/equipment rooms. It is designed to connect to the IMS Host or Node.

Specifications

Pyrosensor: Dual element type

Temperature Comp: Yes

Alarm Period: 2 sec (± 5sec)

Operating ambient temperature range:
-4° to 140°F
-20° to 60°C

Operating humidity range:
Up to 95% (non-condensing)

RFI protection:
>30 V/m @ 10-1000 MHz

EMI immunity:
50,000 V electrical interference

Dimensions:
3.8’’ x 1.8’’ x 2.5’’
97mm x 63mm x 46.5mm

Weight: 3oz (85 grams)

Compatibility: IMS-4000, IMS-4000 Node, IMS-1000

*Specifications subject to change without notice

Package Contents

(1) Passive infrared detection sensor

(2) Plastic drywall anchors

(2) #6 metal tapping screws

Passive Infrared Detection Sensor IMS-4861

IMS Sensors & Accessories

General Accessories

Smoke Detector Sensor

Description

The IMS-4862 Smoke Detector Sensor is designed to connect to the IMS Host or Node and monitor for smoke in indoor environments. The electrical connection between the sensor and IMS is made via the attached RJ-45 patch cable. The sensor may be secured to a wall or ceiling (hardware not included).

Specifications

Sensitivity:
2.0 ± .37% - .39% /ft.

Heat sensor rating:
Fixed 135ºF (57ºC) rate of rise > 15ºF/min. (8.3ºC/min.)

Maximum ambient temperature: 100ºF (37.8ºC)

Power-up time:
15 seconds

Housing:
White plastic

Housing dimensions:
6.1'' d x 1.9'' h
156mm x 48mm

Compatibility:
IMS-4000, IMS-4000 Node, IMS-1000

*Specifications subject to change without notice

Package Contents

(1) Smoke detector

(1) 14' Cat5 patch cable

Smoke Detection Sensor IMS-4862

Airflow Sensor

Description

The Airflow sensor is designed to monitor for the presence or absence of cool moving air. This is especially useful for monitoring air conditioning systems. The sensor can provide relative air flow as a percentage from 0 to 100. The sensor is compatible with both the IMS-1000 and IMS-4000 devices.

Specifications

Sensing Range:
Approx. 0 to 2000 fpm

Sensor Type:
Solid state

Operating Temperature Range:
32° to 80° F
0° to 26.5°C

Operating Humidity:
0% to 80% RH (non-condensing)

Connector:
RJ-45

Dimensions:
4.2" x 1.6" x 0.9"
106mm x 40mm x 23mm

Housing:
Black plastic

Compatibility:
IMS-1000, IMS-4000

*Specifications subject to change without notice

Package Contents

(1) Airflow sensor

(4) Plastic drywall anchors

(4) #6 metal tapping screws

Airflow Sensor IMS-4863

SENSAPHONE
Monitoring Sensor

General Accessories

Axis Camera

Description

The Axis camera is a small network camera ideal for monitoring your small business property, data center, or residence. The camera can be used in combination with the IMS-1000 or IMS-4000 systems to send camera snapshots via e-mail when alarms are detected.

The camera offers a high quality yet affordable video surveillance solution. Using progressive scan technology, the camera provides VGA images of moving objects without motion blur.

Specifications

Image Sensor:
¼" Progressive scan RGB VGA CMOS

Lens:
4.4mm, f/2.0, fixed focus, 47° horizontal angle of view

Minimum Illumination:
1 lux, F2.0

Resolutions:
640x480 to 160x120

Connectors:
RJ-45 10BASE-T/100BASE-TX Auto MDIX

Operating Conditions:
32° to 122°F (0° to 50°C)
20 to 80% RH

Power Supply:
5VDC AC Adapter, 7.5W

Compatibility:
IMS-1000, IMS-4000

*Specifications subject to change without notice

Package Contents

(1) Axis camera

(1) Power supply

(1) Camera stand and clamp

(1) Installation guide and manual

Axis Camera IMS-4423

Panasonic Camera

Description

The Panasonic network camera is ideal for monitoring your small business property, data center, or residence. The camera can be used in combination with the IMS-1000 or IMS-4000 systems to send camera snapshots via e-mail when alarms are detected. The camera features a 3x digital zoom function in addition to remote pan and tilt controls. This allows you to control the direction of the camera right from your web browser. The camera also has a built-in microphone so that you can hear sounds from the remote site as well.

Specifications

Image Sensor:
1/4" CMOS, 320,000 pixel

Viewing Angle:
82° Horizontal, 42° Vertical

Resolutions:
640x480 Max

Operating Conditions:
41° to 104°F (5° to 40°C)
20 to 80% RH

Compatibility:
IMS-1000, IMS-4000

Product Dimensions:
3" x 3" x 3.6"
74mm x 74mm x 91mm

*Specifications subject to change without notice

Package Contents

(1) Panasonic camera

(1) Power supply

(1) Quickstart guide

(1) Installation guide and manual

Panasonic Camera IMS-4421

IMS Sensors & Accessories

IMS Accessories

IMS-4000 Node for Wireless Sensors

Description

The IMS-4000 Receiver Node for Wireless Sensors extends the environmental monitoring capability of your IMS-4000 system by implementing Wireless Sensor technology. The Receiver Node can work with up to 8 wireless sensors. The unit will wirelessly communicate with the sensors, then transmit their status back to your IMS-4000 host via its Ethernet connection. Wireless sensors are available to monitor Temperature, Humidity, Water on the Floor, Power, Dry Contacts, and 4-20mA signals. The sensors use mesh networking technology to create multiple communication paths between the sensors and the Receiver Node to ensure reliable communications. Sensors can also be battery powered for those installations where an outlet may not be available. A LCD is provided to show the status of all wireless sensors. The unit is powered by a plug-in adapter and has a 6V 1.3 AH rechargeable backup battery located inside the enclosure. Circuitry in the unit will maintain precise charging of the battery system.

The unit comes in a rugged plastic enclosure with tabs for wall mounting. Connections for an antenna, power supply, and Ethernet are easily accessible from the top and bottom of the unit.

Package Contents

- (1) IMS-4000 receiver node
- (1) AC power adapter
- (1) 2.4 GHz antenna
- (1) CAT5 patch cable
- (1) Mounting hardware
- (1) Instruction manual

Specifications

Number of Wireless Sensors: 8

Wireless Sensor Frequency:
ISM 2.4GHz

Transmit Power Output:
100mW (20dBm)

Range:
(Indoor): Up to 250'

Internal Monitoring:
AC Power, Backup Battery

Ethernet:
10/100 Base-T, 10/100Mbps

LCD Display:
80 character, backlit

Operating Temperature Range:
32° to 122° F
(0° to 50° C)

Operating Humidity:
5 to 90% RH
non-condensing

Power:
120VAC 60Hz/9VDC 1A power supply w/ locking connector

Battery Backup:
6V 1.3AH rechargeable battery

Dimensions:
7.6" x 5.1" x 2.0"
19cm x 13cm x 5cm

Weight: 1.75 lbs.

**Specifications subject to change without notice*

IMS-4000 Receiver Node for Wireless Sensors IMS-4200

IMS Accessories

Wireless Temperature Sensor

Description

The IMS-4210 Wireless Temperature sensor provides remote temperature monitoring without running wires. Temperature data is sent from the sensor to the IMS-4200 wireless node via an integrated 2.4GHz wireless radio. The device can transmit its signal up to 250' indoors and even greater distances when it has line-of-site. The sensor comes with 3 AA alkaline batteries which will power the sensor for up to 2 years. An optional plug-in power supply is also available, in which case the batteries function as backup power if main AC power fails.

Specifications

Operating & Monitoring Temperature Range:
32° to 122°F (0° to 50°C)

Sensor type:
2.8K Thermistor

Accuracy:
± 1.0°F (± 0.56°C)

Power Requirements:
(3) AA Batteries / 5VDC Power Supply (Router Mode)

Wireless Technology:
ISM 2.4GHz, 100 mW (20dBm)

Housing:
White plastic

Size:
6.8" x 3.5" x 1.5"
17cm x 9cm x 4cm

Compatibility:
IMS-4000 Wireless Node

**Specifications subject to change without notice*

Package Contents

- (1) Wireless temperature sensor
- (3) AA alkaline batteries
- (1) Wall mounting kit

IMS Wireless Temperature Sensor IMS-4210

Wireless External Temperature Sensor

Description

The IMS-4210-E Wireless External Temperature sensor provides remote temperature monitoring without running wires. The sensor includes an external probe with 12' of wire and is intended for monitoring temperatures in refrigerator/freezers or other harsh environments. Temperature data is sent from the sensor to the IMS-4200 wireless node via an integrated 2.4GHz wireless radio. The device can transmit its signal up to 250' indoors and even greater distances when it has line-of-site. The sensor comes with 3 AA alkaline batteries which will power the sensor for up to 2 years.

Specifications

Operating Temperature Range:
32° to 122°F (0° to 50°C)

Monitoring Temperature Range:
-109° to 115°F (-85° to 57°C)

Sensor type:
2.8K Thermistor

Accuracy:
± 1.8°F (1.0°C)

Power Requirements:
(3) AA Batteries / 5VDC Power Supply (Router Mode)

Wireless Technology:
ISM 2.4GHz, 100 mW (20dBm)

Housing:
White plastic

Size:
6.8" x 3.5" x 1.5"
17cm x 9cm x 4cm

Compatibility:
IMS-4000 Wireless Node

**Specifications subject to change without notice*

Package Contents

- (1) Wireless Temperature Sensor
- (1) External temperature probe
- (3) AA Alkaline batteries
- (1) Wall mounting kit

IMS Wireless External Temperature Sensor. IMS-4210-E

IMS Accessories

Wireless Humidity Sensor

Description

The IMS-4211 Wireless Humidity sensor provides remote humidity monitoring without running wires. Data is sent from the sensor to the IMS-4200 Wireless Node via an integrated 2.4GHz wireless radio. The device can transmit its signal up to 250' indoors and even greater distances when it has line-of-site. The sensor comes with 3 AA alkaline batteries which will power the sensor for up to 2 years. An optional plug-in power supply is also available, in which case the batteries function as backup power if main AC power fails.

Specifications

Operating Temperature Range:
32° to 95°F (0° to 50°C)

Operating Humidity Range:
0–95% RH

Sensor type:
Solid state ic

Accuracy:
± 3%

Power Requirements:
(3) AA Batteries / 5VDC
Power Supply (Router Mode)

Wireless Technology:
ISM 2.4GHz, 100 mW
(20dBm)

Housing:
White plastic

Size:
6.8" x 3.5" x 1.5"
17cm x 9cm x 4cm

Compatibility:
IMS-4000 Wireless Node

*Specifications subject to change without notice

Package Contents

(1) Humidity sensor

(1) Wall mounting kit

(3) AA alkaline batteries

IMS Wireless Humidity Sensor IMS-4211

Wireless Power Failure Sensor

Description

The IMS-4213 Wireless Power sensor provides remote power monitoring without running wires. The power status is monitored by the wall plug in adapter and sent from the sensor to the IMS-4200 Wireless Node via an integrated 2.4GHz wireless radio. The device can transmit its signal up to 250' indoors and even greater distances when it has line-of-site. The sensor comes with 3 AA alkaline batteries which will power the sensor for up to 2 years. A plug-in power supply is included.

Specifications

Operating Temperature Range:
32° to 95°F (0° to 50°C)

Operating Humidity Range:
5–90% RH

Range (Indoor/Urban):
Up to 250' (76m)

Transmit Power Output:
100mW (20dBm)

Power Requirements:
(3) AA Batteries / 5VDC
Power Supply

Wireless Technology:
ISM 2.4GHz, 100 mW
(20dBm)

Housing:
White plastic

Size:
6.8" x 3.5" x 1.5"
17cm x 9cm x 4cm

Compatibility:
IMS-4000 Wireless Node

*Specifications subject to change without notice

Package Contents

(1) Wireless power sensor

(1) 5VDC wall plug–in power adapter

(1) Wall mounting kit

(3) AA alkaline batteries

IMS Wireless Power Failure Sensor IMS-4213

SENSAPHONE
Monitoring Sensor

IMS Accessories

Wireless Dry Contact Sensor

Description

The IMS-4212 Wireless Dry Contact sensor provides remote contact monitoring without running wires. Contact data is sent from the sensor to the IMS-4200 Wireless Node via an integrated 2.4GHz wireless radio. The device can transmit its signal up to 250' indoors and even greater distances when it has line-of-site. The sensor comes with 3 AA alkaline batteries which will power the sensor for up to 2 years. An optional plug-in power supply is also available, in which case the batteries function as backup power if main AC power fails (power supply required for router mode).

Specifications

Operating Temperature Range:
32° to 122°F (0° to 50°C)

Operating Humidity Range:
5–90% RH

Input Characteristics:
3MΩ To 3V

Power Requirements:
(3) AA Batteries / 5VDC
Power Supply (Router Mode)

Wireless Technology:
ISM 2.4GHz, 100 mW
(20dBm)

Housing:
White plastic

Size:
6.8" x 3.5" x 1.5"
17cm x 9cm x 4cm

Compatibility:
IMS-4000 Wireless Node

*Specifications subject to change without notice

Package Contents

(1) Dry contact sensor

(3) AA alkaline batteries

(1) Wall mounting kit

IMS Wireless Dry Contact Sensor IMS-4212

Wireless 4-20mA Sensor

Description

The IMS-4214 Wireless 4-20mA sensor provides remote monitoring of 4-20mA transducers without running wires. The 4-20mA signal is sent from the sensor to the IMS-4200 Wireless Node via an integrated 2.4GHz wireless radio. An internal 24V DC supply is built–in to power the current loop. The device can transmit its signal up to 250' indoors and even greater distances when it has line-of-site. The sensor comes with 3 AA alkaline batteries which will power the sensor when main power fails. A plug-in power supply is included.

Specifications

Input Load:
260 Ohms

Loop Current:
20mA max

Accuracy:
1%

Loop Power:
24V DC 30mA max

Power Requirements:
(3) AA Batteries and 5VDC
(300mA) plug in adapter

Wireless Technology:
ISM 2.4GHz, 100 mW
(20dBm)

Housing:
White plastic

Size:
6.8" x 3.5" x 1.5"
17cm x 9cm x 4cm

Compatibility:
IMS-4000 Wireless Node

*Specifications subject to change without notice

Package Contents

(1) 4-20mA sensor

(1) 5V DC wall plug–in power adapter

(3) AA alkaline batteries

(1) Wall mounting kit

IMS Wireless 4-20mA Sensor. IMS-4214

IMS Accessories

Wireless Spot Water Detection Sensor

Description

The IMS-4215 Wireless Spot Water Detection Sensor provides remote leak detection monitoring without running wires. The sensor has four probes on the bottom of the enclosure which will trigger an alarm when any adjacent pair get wet. Alarm information is sent from the sensor to the IMS-4200 Wireless node via an integrated 2.4GHz Wireless radio. The device can transmit its signal up to 250' indoors and even greater distances when it has line-of-site. Simply place the sensor on the floor in the area to be monitored. The sensor comes with 3 AA alkaline batteries which will power the sensor for up to 2 years.

Specifications

Operating Temperature Range:
32° to 122°F (0° to 50°C)

Operating Humidity Range:
5–90% RH

Power Requirements:
(3) AA Batteries

Wireless Technology:
ISM 2.4GHz, 100 mW (20dBm)

Housing:
White plastic

Size:
6.8" x 3.5" x 1.5"
17cm x 9cm x 4cm

Compatibility:
IMS-4000 Wireless Node

*Specifications subject to change without notice

Package Contents

(1) Wireless spot water sensor

(1) Wall mounting kit

(3) AA alkaline batteries

IMS Wireless Spot Water Detection Sensor IMS-4215

Wireless Zone Water Detection Sensor

Description

The IMS-4216 Wireless Zone Water Detection Sensor provides remote leak detection monitoring without running wires. The sensor comes with 10' of leak detection cable which can be installed around equipment or under a raised flooring system. The detection cable can be extended to cover larger areas by connecting additional 10' lengths. The device can transmit its signal up to 250' indoors and even greater distances when it has line-of-site.

Specifications

Operating Temperature Range:
32° to 122°F (0° to 50°C)

Operating Humidity:
5-90% RH

Power Requirements:
(3) AA Batteries / 5VDC Power Supply (Router Mode)

Wireless Technology:
ISM 2.4GHz, 100mW (20dBm)

Housing:
White plastic

Size:
6.8" x 3.5" x 1.5"
17cm x 9cm x 4cm

Compatibility:
IMS-4000 Wireless Node

*Specifications subject to change without notice

Package Contents

(1) Wireless zone water detector

(1) 10' WaterRope

(5) Adhesive cable clamps

(3) AA alkaline batteries

(1) Wall mounting kit

IMS Wireless Zone Water Detection Sensor IMS-4216

IMS Accessories

Miscellaneous IMS Accessories

Cat5 Cable

A current industry standard for network and telephone wiring. Standard Cat5 cable can be used to connect any Sensaphone IMS sensor to its Host or Node.

7' Cat5 Cable IMS-4402
14' Cat5 Cable IMS-4403
25' Cat5 Cable IMS-4404

RJ 45 Couplers

Four female to female plug ins allows cabling to be lengthened without compromising signal integrity.

RJ45 Couplers IMS-4405

Wall Brackets

The Wall bracket allows the IMS-4000 Host or Node to be mounted to any wall. Comes with (4) plastic drywall anchors and (4) #6 metal tapping screws.

Wall Bracket. IMS-4406

USB to RS232 Serial Converter

Configure network settings in the IMS-4000 Host and Node or interface a PowerGate or Dual Relay Output Module via USB.

Serial Converter FGD-0221

ACCESSORY COMPATIBILITY CHART

Standard Product Accessories

Item Number	Accessory Name	W600	400	800	1400	1800	2800	2000	6700	3000
FGD-0100	2.8K Temperature Sensor	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
FGD-0101	2.8K Weatherproof Temperature	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
FGD-0102	10K Weatherproof Temperature	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
FGD-0103	10K Indoor Decorator	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
FGD-0104	10K Outdoor Air Weatherproof	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
FGD-0105	10K Immersion Temperature	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
FGD-0107	Temp Sensor/Glass Bead Vial	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
FGD-0220	J Type Thermocouple/4-20mA	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
FGD-0022	Temp Alert	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FGD-0027	Humidistat	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FGD-0052	Humidity 4-20mA Transmitter	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
FGD-0054	PowerOut Alert MODEL PS-110	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FGD-0013	Spot Water Detector	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FGD-0056	Zone Water Detector	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FGD-0006	Magnetic Reed Switch	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FGD-0007	Infa-Red Motion Detector	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FGD-0049	Smoke Detector 110VAC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FGD-0205	Multi-Point Wireless I/O	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FGD-0057	External Microphone	No	No	No	Yes	Yes	Yes	No	Yes	No
FGD-0067	Surge Suppressor	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FGD-0065	CO Gas Monitor	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
FGD-0066	Air Quality Sensor	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
FGD-0068	CO_2 Sensor	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes

IMS Product Accessories

Item Number	Accessory Name	IMS-1000	IMS-4000 Host	IMS-4000 Node
IMS-4810	Temperature Sensor	Yes	Yes	Yes
IMS-4811	Temp Sensor w/ Display (°F)	Yes	Yes	Yes
IMS-4812	Mini Temp Sensor	Yes	Yes	Yes
IMS-4813	Temp Sensor w/Display (°C)	Yes	Yes	Yes
IMS-4814	Ultra Low Temp Sensor	Yes	Yes	Yes
IMS-4815	Temperature Sensor w/ Glass Bead Vial	Yes	Yes	Yes
IMS-4816	External Probe Temperature Sensor	Yes	Yes	Yes
IMS-4820	Humidity Sensor	Yes	Yes	Yes
IMS-4821	Humidity Sensor w/ Display	Yes	Yes	Yes
IMS-4830	Water Detector	Yes	Yes	Yes
IMS-4840	Power Failure	Yes	Yes	Yes
IMS-4841	15A Current Sensor	Yes	Yes	Yes
IMS-4842	20A Current Sensor	Yes	Yes	Yes
IMS-4850	Dry Contact Bridge	Yes	Yes	Yes
IMS-4851	4-20mA Bridge	Yes	Yes	Yes
IMS-4860	Magnetic Reed Switch	Yes	Yes	Yes
IMS-4861	Motion Sensor	Yes	Yes	Yes
IMS-4862	Smoke Detector	Yes	Yes	Yes
IMS-4863	Airflow Sensor	Yes	Yes	Yes
IMS-4310	Dual Output Relay Module	No	Yes	Yes

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